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Manufacturing Investment Statistics

Capital Appropriations

Third Quarter 1982

and

Capital Investment and Supply Conditions

October 1982

The Conference Board
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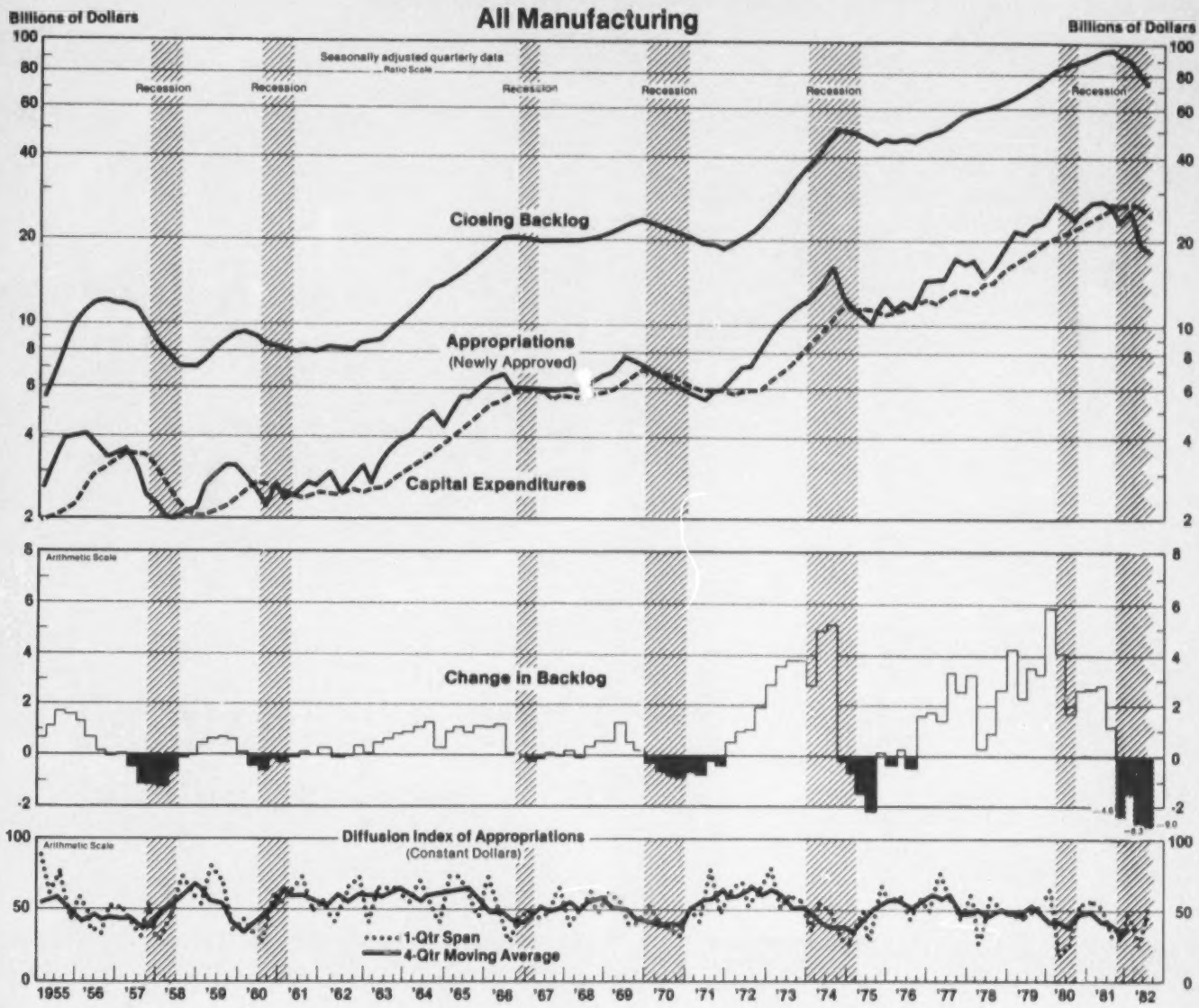
The Conference Board

CAPITAL APPROPRIATIONS IN RECESSION AND EXPANSION



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The Conference Board
Quarterly Survey of Capital Appropriations
Third Quarter 1982

The capital investment outlook is soft. There has been no net economic growth in the United States for three years, and the utilization of manufacturing capacity is consequently very low (as is utilization of the labor force). With profits declining sharply in 1982 and end-product markets in the doldrums, there is no reason to look for any strength in capital investment, and the data show none.

Some growth in the overall economy in 1983 is widely expected, but not in capital investment—both because the general economic upturn is expected to be of very modest proportions, and because recovery in capital investment normally lags behind the general upturn. In manufacturing, 1983 will be the third consecutive year of weak capital investment activity. While the weakness in 1981-1983 is certainly severe, it is not unusually so when compared with capital spending developments during economic slumps in the past 25 years. The open question is whether there will be a pickup in 1984.

Third Quarter Developments

New capital appropriations of the nation's 1,000 largest manufacturers were $18.7 billion (seasonally adjusted) in the third quarter of 1982, down 3.2% from the second quarter and the lowest since the fourth quarter of 1978. At the same time, the estimate of appropriations in the second quarter of 1982 has been revised down 3.5% (partly because of data changes and partly because of the inclusion of data from late-reporting companies). There has been an aggregate drop in new appropriations of 33% from the peak of $28.1 billion reached in the second quarter of 1981. *The appropriations peaks for individual industries were recorded at various times during the past four years; in the third quarter of 1982, the appropriations of most industries were down by between 40% and 70% from the respective industry peaks.* The textile industry is an exception, as its appropriations rose enormously in the second and third quarters and were at their peak in the third.

While new appropriations of $18.7 billion were being made in the third quarter, cancellations and adjustments of previously approved appropriations amounted to $3.2 billion. This is a record by a wide margin; the previous record was $1.9 billion in the second quarter of 1982. After subtracting cancellations and adjustments, net new appropriations in the third quarter were only $15.5 billion. This constituted a drop of 10.9% from the second quarter, compared with the 3.2% drop in gross appropriations. Since the second quarter of 1981, the aggregate drop in net appropriations is 43%, compared with 33% for gross new appropriations.

During economic expansion periods, gross and net capital appropriations generally rise at about the same percentage rate; during slumps, net appropriations generally weaken more than gross appropriations because project cancellations become more common. However, the divergence between gross and net appropriations in 1981-1982 has been unusually wide. This mainly reflects very large cancellations in the petroleum industry (in the fourth quarter of 1981 and the second and third quarters of 1982) and motor vehicles (in the second and third quarters). Indeed, the motor vehicle industry accounted for the entire amount of the rise in cancellations and adjustments from $1.9 billion in this year's second quarter to $3.2 billion in the third.

Capital spending by the 1,000 largest manufacturers was $24.5 billion (seasonally adjusted) in the third quarter of 1982, down 4.7% from the second quarter. This was the third decline in the past four quarters and put spending 8.9% below the peak reached in the first quarter of 1982. Excluding the petroleum industry, spending fell 6.2% in the third quarter and was 10.2% below the peak reached one year earlier.

Capital outlays of $24.5 billion in the third quarter were $9.0 billion larger than net new appropriations of only $15.5 billion. The backlog of unexpended appropriations therefore fell $9.0 billion to $73.8 billion (seasonally adjusted) at September 30. This was the fourth consecutive decline, and put the backlog at a level nearly one-fourth below the peak recorded on September 30, 1981.

The Investment Outlook

The quarterly survey of the 1,000 largest manufacturers asks for the companies' expected appropriations and expenditures. The question in the immediately preceding survey dealt with expectations for appropriations and spending in calendar 1982, while the question in the latest survey covered expectations for calendar 1983. The 1982 expectations reported three months ago were generally realistic for capital spending but unrealistically high for capital appropriations. Specifically, the expectations pointed to a 1% rise in spending this year and an 11% drop in appropriations. *With three quarters of actual data and conservative projections for the fourth quarter, it appears that spending will be up about 2% from 1981 but that appropriations will be down more than 20%.* These 1982 estimates are entered in Table 4 (page 6) along with the actual percent changes in 1981 and the first report of expected 1983 changes.

The 1983 expectations point to a big rebound of appropriations in the petroleum industry (up 41%) and a moderate upturn in the rest of manufacturing (11%), for an overall rise of 22%. The spending outlook is subdued, with the petroleum industry expecting a 4% drop and the rest of manufacturing a 2% rise, making for no net change in the total. The weak spending expectations for 1983 reflect the weakness of appropriations already recorded in 1981 and 1982. *The expected rise in appropriations in 1983, if achieved, will for the most part flow into spending in 1984 and beyond.*

If 1983 spending expectations are realized, total spending by the 1,000 largest manufacturers will be unchanged from 1982 in dollars and off 5% to 6% in real terms—assuming a 5% to 6% rise in capital goods prices. The 1982 spending decline in real terms will probably be about 3%, making a total drop over the two years of under 10%. That degree of slump is by no means unusually sharp compared with past periods of economic recession. The comparison is perhaps fairer if the large and volatile petroleum industry is omitted. The projections and expectations suggest that real spending by the large manufacturers excluding petroleum will be down a total of around 13% for the three years 1981-1983, about equal to the total decline in 1975 and 1976. The total decline was over 20% in 1970-1972, 8% in 1967 and 1968, 10% in 1961, and 40% in 1958 and 1959. The important question is what will happen to capital spending in 1984. If it drops once again in real terms, that will make this a slump that is a record at least in duration if not necessarily in depth. Prospects for 1984 must be considered as guarded; the expected 1983 rise in nonpetroleum appropriations of 11% would be only about 5% or 6% in real terms—not enough to fuel much of a pickup in real investment in 1984.

Lora S. Collins

TABLE 1. PERCENT CHANGES IN CAPITAL APPROPRIATIONS AND EXPENDITURES
Seasonally Adjusted Data in Current and Constant (1972) Dollars

	Current Dollars				Constant Dollars			
	IV-81 to I-82	I-82 to II-82	II-82 to III-82	III-81 to III-82	IV-81 to I-82	I-82 to II-82	II-82 to III-82	III-81 to III-82
				—APPROPRIATIONS—				
ALL MANUFACTURING	12.1	—25.0	— 3.2	—30.5	6.9	—22.7	— 2.2	—31.6
ALL MFG. EX PETROLEUM	— 4.6	—17.5	3.8	—29.7	— 4.6	—20.6	4.3	—32.4
DURABLE GOODS	—11.4	—13.5	3.6	—34.5	—12.0	—16.1	3.3	—37.2
Primary iron & steel	—29.8	—53.7	2.4	—78.9	—28.7	—53.7	1.4	—77.3
Primary nonferrous metals	—39.9	—47.6	102.4	—29.4	—37.8	—48.9	107.6	—29.3
Electrical machinery & equipment	7.8	11.5	— 6.6	—13.0	4.9	12.9	— 6.9	—14.7
Nonelectrical machinery	—28.0	—16.9	—10.4	—44.6	—28.8	—21.9	—10.1	—49.7
Motor vehicles & equipment	36.1	49.2	69.9	16.7	31.1	48.6	68.9	9.3
Other transportation equipment	43.9	—15.8	—30.7	—24.3	51.5	—21.2	—31.4	—30.0
Stone, clay & glass	—20.9	—17.5	41.5	—34.7	—20.5	—20.5	44.2	—34.0
Fabricated metals	—48.2	—11.7	—25.7	—52.6	—48.6	—12.4	—27.4	—52.9
Instruments & photo equipment	— 2.2	—30.7	15.7	—28.1	— 2.3	—32.3	14.9	—29.9
Other durable goods†	129.1	—29.9	—52.8	—61.3	120.6	—28.8	—56.0	—64.7
NONDURABLE GOODS	28.7	—30.6	— 7.3	—27.6	21.0	—26.3	— 5.6	—27.2
Food & beverages	30.0	3.2	—16.7	—15.8	32.4	— 2.3	—16.4	—19.1
Textiles	—24.8	33.5	55.1	30.9	—24.9	31.6	59.6	31.6
Paper & allied products	46.8	—78.0	19.8	—44.8	51.0	—78.5	20.1	—46.6
Chemicals & allied products	—15.1	— 1.3	6.4	—29.7	—14.4	— 7.5	9.8	—32.3
Petroleum & coal products	50.2	—35.8	—16.4	—32.4	35.9	—26.3	—14.7	—29.6
Rubber products	35.3	— 6.8	—15.5	—35.8	22.0	— 0.5	—15.5	—38.5
Other nondurable goods†	—28.4	7.1	19.9	22.5	—32.1	10.0	17.2	19.0
				—EXPENDITURES—				
ALL MANUFACTURING	2.9	— 4.4	— 4.7	— 6.5	— 0.6	— 2.2	— 3.9	— 7.9
ALL MFG. EX PETROLEUM	0.5	— 3.9	— 6.2	—10.2	0.2	— 6.8	— 5.9	—13.7
DURABLE GOODS	1.8	— 4.5	— 9.3	—12.7	1.1	— 6.8	— 9.7	—16.4
Primary iron & steel	15.5	—12.3	—18.7	— 3.0	17.2	—12.2	—19.5	4.9
Primary nonferrous metals	— 8.0	—12.5	0.2	—28.2	— 4.8	—14.6	2.8	—28.1
Electrical machinery & equipment	12.5	— 5.0	— 7.3	— 6.9	9.4	— 3.9	— 7.7	— 8.8
Nonelectrical machinery	— 2.7	3.6	— 9.7	2.8	— 3.8	— 2.6	— 9.4	— 6.8
Motor vehicles & equipment	— 2.6	— 9.6	—19.3	—34.6	— 6.2	— 9.9	—19.8	—38.7
Other transportation equipment	—17.0	4.7	9.4	— 4.8	—12.6	— 2.0	8.3	—12.1
Stone, clay & glass	7.0	—13.2	3.1	—14.4	7.6	—16.4	5.1	—13.5
Fabricated metals	8.9	— 7.2	— 9.0	— 1.6	8.0	— 8.0	—11.1	— 1.6
Instruments & photo equipment	2.2	2.1	— 2.3	— 1.9	2.1	— 0.4	— 3.0	— 4.1
Other durable goods†	18.8	—19.4	—23.6	—50.3	14.4	—18.1	—28.8	—54.5
NONDURABLE GOODS	3.6	— 4.4	— 1.5	— 1.9	— 1.9	1.4	0.2	— 1.3
Food & beverages	— 3.4	1.8	1.6	— 8.9	— 1.7	— 3.6	1.9	—12.6
Textiles	—16.1	12.5	0.4	8.0	—16.2	10.9	3.3	8.3
Paper & allied products	— 2.3	1.9	— 0.4	— 0.8	0.4	— 0.2	— 0.2	— 3.9
Chemicals & allied products	— 1.0	— 7.1	— 1.1	— 7.8	— 0.2	—12.9	2.0	—11.1
Petroleum & coal products	7.8	— 5.4	— 1.8	1.5	— 2.5	8.6	0.2	5.8
Rubber products	—20.2	8.4	—12.2	—13.7	—28.0	15.7	—12.2	—17.5
Other nondurable goods†	12.8	— 9.4	— 4.7	— 2.5	7.1	— 7.0	— 6.9	— 5.1

See General Notes on page 7.

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES
Seasonally Adjusted Quarterly Data in Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	IV-81	I-82	II-82	III-82	IV-81	I-82	II-82	III-82
ALL MANUFACTURING								
Opening backlog	97,341	92,739	91,110	82,821	85,895	83,640	82,732	78,605
Newly approved	22,992	25,767	19,331	18,709	11,591	12,394	9,579	9,367
Canceled	1,420	472	1,886	3,187	699	236	932	1,579
Capital expenditure	26,174	26,924	25,734	24,521	13,147	13,066	12,774	12,275
Closing backlog	92,739	91,110	82,821	73,822	83,640	82,732	78,605	74,118
DURABLE GOODS								
Opening backlog	41,801	39,848	36,854	32,689	39,119	38,129	36,609	34,521
Newly approved	9,532	8,446	7,308	7,568	4,939	4,346	3,646	3,767
Canceled	520	279	810	2,167	271	144	404	1,064
Capital expenditure	10,965	11,161	10,663	9,676	5,659	5,722	5,330	4,815
Closing backlog	39,848	36,854	32,689	28,414	38,129	36,609	34,521	32,409
Primary iron & steel								
Opening backlog	5,402	5,438	4,985	4,114	6,185	6,204	5,961	5,494
Newly approved	1,013	711	329	337	535	381	177	179
Canceled	2	38	212	187	1	20	114	99
Capital expenditure	975	1,126	988	803	515	604	530	427
Closing backlog	5,438	4,985	4,114	3,461	6,204	5,961	5,494	5,147
Primary nonferrous metals								
Opening backlog	3,643	3,652	3,548	3,294	3,701	3,706	3,651	3,521
Newly approved	524	315	165	334	266	166	85	176
Canceled	—33	—85	—22	93	—17	—45	—11	49
Capital expenditure	548	504	441	442	278	265	226	233
Closing backlog	3,652	3,548	3,294	3,093	3,706	3,651	3,521	3,415
Electrical machinery & equipment								
Opening backlog	3,807	3,512	3,254	3,287	4,046	3,891	3,759	3,776
Newly approved	1,343	1,448	1,615	1,508	707	741	837	779
Canceled	172	57	16	113	91	29	8	58
Capital expenditure	1,466	1,649	1,566	1,451	772	844	811	749
Closing backlog	3,512	3,254	3,287	3,231	3,891	3,759	3,776	3,747
Nonelectrical machinery								
Opening backlog	8,354	8,627	7,973	6,643	6,856	6,997	6,663	6,026
Newly approved	3,379	2,434	2,022	1,811	1,745	1,242	970	872
Canceled	57	120	277	250	29	61	133	120
Capital expenditure	3,049	2,968	3,075	2,776	1,574	1,515	1,475	1,337
Closing backlog	8,627	7,973	6,643	5,428	6,997	6,663	6,026	5,441
Motor vehicles & equipment								
Opening backlog	9,651	8,151	7,008	6,049	7,983	7,225	6,669	6,205
Newly approved	441	600	895	1,521	223	292	434	732
Canceled	170	18	295	1,356	86	9	143	653
Capital expenditure	1,771	1,725	1,559	1,258	894	839	755	606
Closing backlog	8,151	7,008	6,049	4,956	7,225	6,669	6,205	5,679
Other transportation equipment								
Opening backlog	2,466	2,251	2,377	2,424	2,252	2,148	2,212	2,234
Newly approved	651	937	789	547	316	478	377	259
Canceled	—5	88	—15	20	—2	45	—7	9
Capital expenditure	871	723	757	828	422	369	362	392
Closing backlog	2,251	2,377	2,424	2,123	2,148	2,212	2,234	2,092
Stone, clay & glass								
Opening backlog	2,021	1,931	1,770	1,607	2,212	2,164	2,078	1,994
Newly approved	440	348	287	406	235	187	148	214
Canceled	84	32	36	37	45	17	19	19
Capital expenditure	446	477	414	427	238	256	214	225
Closing backlog	1,931	1,770	1,607	1,549	2,164	2,078	1,994	1,963
Fabricated metals								
Opening backlog	1,784	1,941	1,781	1,652	1,721	1,804	1,720	1,654
Newly approved	579	300	265	197	304	156	137	99
Canceled	16	18	—16	21	8	9	—8	11
Capital expenditure	406	442	410	373	213	230	212	188
Closing backlog	1,941	1,781	1,652	1,455	1,804	1,720	1,654	1,554

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES (continued)

	Current Dollars				Constant (1972) Dollars			
	IV-81	I-82	II-82	III-82	IV-81	I-82	II-82	III-82
Instruments & photo equipment								
Opening backlog	2,220	2,239	2,208	1,913	1,806	1,816	1,799	1,648
Newly approved	997	975	676	782	523	511	346	397
Canceled	40	47	—8	52	21	25	—4	26
Capital expenditure	938	959	979	956	492	503	501	486
Closing backlog	2,239	2,208	1,913	1,687	1,816	1,799	1,648	1,534
Other durable goods†								
Opening backlog	2,453	2,106	1,950	1,706	2,358	2,175	2,096	1,971
Newly approved	165	378	265	125	87	192	136	60
Canceled	17	—54	35	38	9	—27	18	18
Capital expenditure	495	588	474	362	261	298	244	174
Closing backlog	2,106	1,950	1,706	1,431	2,175	2,096	1,971	1,839
NONDURABLE GOODS								
Opening backlog	55,540	52,891	54,256	50,132	46,776	45,512	46,123	44,084
Newly approved	13,460	17,321	12,023	11,141	6,652	8,048	5,934	5,599
Canceled	900	193	1,076	1,020	428	93	529	515
Capital expenditure	15,209	15,763	15,071	14,845	7,488	7,344	7,444	7,460
Closing backlog	52,891	54,256	50,132	45,408	45,512	46,123	44,084	41,709
Food & beverages								
Opening backlog	4,331	3,781	3,552	3,542	4,255	3,974	3,855	3,850
Newly approved	1,116	1,451	1,497	1,247	571	755	738	617
Canceled	95	163	—38	31	49	85	—19	15
Capital expenditure	1,571	1,517	1,545	1,569	803	790	762	776
Closing backlog	3,781	3,552	3,542	3,189	3,974	3,855	3,850	3,675
Textiles								
Opening backlog	914	842	766	720	891	854	814	790
Newly approved	242	182	243	377	127	95	126	200
Canceled	28	18	19	14	15	9	10	7
Capital expenditure	286	240	270	271	150	126	139	144
Closing backlog	842	766	720	812	854	814	790	839
Paper & allied products								
Opening backlog	4,490	5,088	6,353	5,953	4,130	4,441	5,117	4,908
Newly approved	1,441	2,116	465	557	749	1,131	243	292
Canceled	—58	—29	—32	139	—30	—15	—17	73
Capital expenditure	901	880	897	893	468	470	469	469
Closing backlog	5,088	6,353	5,953	5,478	4,441	5,117	4,908	4,659
Chemicals & allied products								
Opening backlog	9,815	9,435	8,705	8,071	9,525	9,330	8,951	8,643
Newly approved	2,667	2,265	2,236	2,380	1,373	1,175	1,087	1,193
Canceled	—34	—54	36	11	—18	—28	18	6
Capital expenditure	3,081	3,049	2,834	2,803	1,586	1,582	1,378	1,406
Closing backlog	9,435	8,705	8,071	7,637	9,330	8,951	8,643	8,425
Petroleum and coal products								
Opening backlog	31,977	29,676	30,986	28,057	24,499	23,411	23,971	22,532
Newly approved	6,976	10,481	6,726	5,622	3,301	4,487	3,305	2,819
Canceled	839	77	1,050	813	397	33	516	408
Capital expenditure	8,438	9,094	8,605	8,446	3,993	3,893	4,228	4,235
Closing backlog	29,676	30,986	28,057	24,420	23,411	23,971	22,532	20,709
Rubber products								
Opening backlog	943	869	924	913	1,058	1,019	1,045	1,039
Newly approved	153	207	193	163	81	99	98	83
Canceled	19	—14	24	2	10	—7	12	1
Capital expenditure	208	166	180	158	110	79	91	80
Closing backlog	869	924	913	916	1,019	1,045	1,039	1,041
Other nondurable goods†								
Opening backlog	3,070	3,200	2,970	2,876	2,416	2,484	2,370	2,322
Newly approved	865	619	663	795	451	306	337	395
Canceled	11	32	17	10	6	16	9	5
Capital expenditure	724	817	740	705	377	404	376	350
Closing backlog	3,200	2,970	2,876	2,956	2,484	2,370	2,322	2,362

See General Notes on page 7.

TABLE 3. PROPORTION OF APPROPRIATIONS FOR PLANT
Percent

	80-III	80-IV	81-I	81-II	81-III	81-IV	82-I	82-II	82-III
ALL MANUFACTURING	23	19	21	20	19	18	20	25	23
DURABLE GOODS	23	15	19	21	19	18	21	25	24
Primary iron and steel	18	6	6	14	38	12	8	3	5
Primary nonferrous metals	26	24	20	20	16	24	14	17	8
Electrical machinery & equipment	24	19	16	19	16	13	22	14	14
Nonelectrical machinery	20	8	19	25	13	19	23	37	35
Motor vehicles & equipment	24	16	30	30	24	26	37	34	35
Other transportation equipment	41	32	27	24	25	38	23	38	40
Stone, clay & glass	5	28	10	7	19	9	8	15	8
Fabricated metals	25	16	16	13	30	14	17	15	21
Instruments & photo equipment	10	9	10	15	20	14	15	18	19
Other durable goods	21	17	17	20	17	13	25	16	36
NONDURABLE GOODS	22	24	23	17	18	19	19	26	21
Food & beverages	21	26	20	21	23	22	17	29	27
Textiles	10	12	16	22	14	14	15	15	5
Paper & allied products	17	11	14	3	6	17	9	11	9
Chemicals & allied products	30	29	22	14	20	20	18	33	23
Rubber products	8	6	21	19	13	12	43	20	19
Other nondurable goods	22	20	23	42	2	16	32	20	26

Based on data from those companies that report appropriations for plant and equipment separately. The composition of this group varies slightly from quarter to quarter. Petroleum industry is excluded. Historical data from 1959 available on request.

See also General Notes on page 7.

TABLE 4. PERCENT CHANGE IN CAPITAL APPROPRIATIONS AND EXPENDITURES: 1981 ACTUAL, 1982 ESTIMATED AND 1983 EXPECTED*

	Appropriations			Expenditures		
	1981	1982	1983	1981	1982	1983
All Manufacturing	2	—21	22	15	2	0
All Manufacturing except Petroleum	—2	—23	11	6	3	2
Durable goods	—5	—27	13	4	—3	—1
Nondurable goods	7	—18	28	24	5	1
Petroleum	12	—18	41	42	12	—4
Other	2	—17	10	8	—3	7

*Estimates for 1982 are based on three quarters of data plus a conservative projection of the fourth quarter. Expectations for 1983 are based on the survey respondents' answers to a question about their expectations.

See also General Notes on page 7.

TABLE 5. CAPITAL APPROPRIATIONS AND EXPENDITURES, ANNUAL TOTALS
In Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	1978	1979	1980	1981	1978	1979	1980	1981
				—APPROPRIATIONS—				
ALL MANUFACTURING	67,156	88,519	104,631	106,956	43,085	52,469	58,497	55,029
ALL MFG. EX. PETROLEUM	52,014	68,993	71,756	70,052	33,509	41,380	40,215	37,056
DURABLE GOODS	33,089	43,339	44,271	42,146	21,290	26,088	24,893	22,357
Primary iron & steel	3,083	3,559	2,889	5,210	1,991	2,175	1,663	2,736
Primary nonferrous metals	1,381	1,941	3,384	2,482	880	1,163	1,883	1,497
Electrical machinery & equipment	4,421	5,859	6,544	5,787	2,845	3,535	3,668	3,073
Nonelectrical machinery	6,306	10,236	9,368	12,700	4,089	6,183	5,324	6,674
Motor vehicles & equipment	6,981	8,129	7,110	3,489	4,542	4,897	3,985	1,796
Other transportation equipment	2,911	3,817	4,201	3,099	1,858	2,246	2,293	1,589
Stone, clay & glass	2,311	2,367	2,043	2,094	1,495	1,449	1,178	1,126
Fabricated metals	1,625	1,846	1,571	1,765	1,055	1,125	881	931
Instruments & photo equipment	2,162	2,925	3,114	4,273	1,344	1,765	1,782	2,273
Other durable goods†	1,908	2,660	4,047	1,247	1,189	1,549	2,236	663
NONDURABLE GOODS	34,067	45,180	60,360	64,810	21,795	26,381	33,604	32,672
Food & beverages	4,898	6,640	6,603	5,772	3,165	3,938	3,706	3,022
Textiles	853	960	999	1,150	553	574	568	610
Paper & allied products	2,795	3,979	3,576	5,010	1,795	2,440	2,050	2,704
Chemicals & allied products	7,759	10,725	12,170	12,019	5,012	6,346	6,718	6,328
Petroleum & coal products	15,142	19,526	32,875	36,904	9,576	11,089	18,282	17,973
Rubber products	1,035	1,057	902	813	676	645	524	431
Other nondurable goods†	1,585	2,293	3,235	3,142	1,018	1,350	1,756	1,603
				—EXPENDITURES—				
ALL MANUFACTURING	58,356	73,126	88,209	101,341	37,374	43,290	49,327	51,949
ALL MFG. EX. PETROLEUM	43,861	56,250	65,981	69,763	28,224	33,694	36,967	36,646
DURABLE GOODS	26,414	35,230	41,056	42,871	16,973	21,173	23,070	22,505
Primary iron & steel	2,671	3,243	3,458	3,405	1,729	1,973	1,992	1,797
Primary nonferrous metals	1,433	1,685	2,411	2,386	911	1,005	1,334	1,252
Electrical machinery & equipment	3,668	4,918	6,271	6,069	2,356	2,965	3,506	3,225
Nonelectrical machinery	5,445	8,400	9,826	11,289	3,529	5,060	5,569	5,939
Motor vehicles & equipment	4,508	5,335	5,555	6,688	2,943	3,213	3,109	3,429
Other transportation equipment	2,051	2,908	4,039	3,464	1,309	1,710	2,186	1,770
Stone, clay & glass	1,944	2,407	2,289	1,886	1,256	1,472	1,317	1,016
Fabricated metals	1,237	1,614	1,568	1,515	804	982	883	799
Instruments & photo equipment	1,517	2,389	2,889	3,629	941	1,445	1,653	1,931
Other durable goods†	1,940	2,331	2,750	2,540	1,195	1,346	1,521	1,347
NONDURABLE GOODS	31,942	37,896	47,153	58,470	20,401	22,117	26,257	29,443
Food & beverages	4,217	5,037	6,014	6,744	2,725	2,989	3,370	3,523
Textiles	837	763	900	1,039	541	459	508	550
Paper & allied products	2,140	3,018	3,859	3,746	1,374	1,841	2,199	2,025
Chemicals & allied products	7,797	9,309	10,918	11,785	5,024	5,506	6,021	6,199
Petroleum & coal products	14,495	16,876	22,228	31,578	9,150	9,595	12,360	15,303
Rubber products	909	963	801	749	595	588	465	398
Other nondurable goods†	1,547	1,930	2,433	2,829	993	1,139	1,333	1,445

Each annual figure is the sum of not-seasonally-adjusted quarterly figures, and may not equal the sum of seasonally adjusted quarterly figures.

GENERAL NOTES

Data for 1982-II are revised; data for 1982-III are preliminary

All estimates are based on a survey and are for the survey population, which is composed of the 1,000 largest manufacturing companies as ranked by total assets in 1979.

Historical data from 1953 available on request from the Business Conditions Analysis Department: (1) quarterly series seasonally adjusted; (2) quarterly series not seasonally adjusted; (3) annual series.

†Other durables includes lumber, furniture and fixtures, and miscellaneous manufactures; other nondurables includes tobacco, apparel, printing and publishing, and leather.

The Conference Board

Quarterly Survey of Capital Investment and Supply Conditions in Manufacturing

October 1982

The spreading industrial slack reported in January, April, and July of this year showed no sign of letup in October, according to replies received to the Quarterly Survey of Capital Investment and Supply Conditions among the 1,000 largest manufacturers. For the first time in the survey's 18-year history, more than half of the respondents reported some excess capacity. The extent of underutilization of capacity rose, and plans for expansion of facilities fell to the lowest level ever for all industries except petroleum. The favorable finding of the October survey was easier availability of external funds—the first real improvement in this indicator in more than two years.

The companies reporting "more than adequate" plant and equipment in October accounted for 51% of all respondents' assets (Table 1), up from 47% in July. Eight industries reported more excess capacity than in July, and eleven industries indicated a greater degree of underutilization. Upwards of 20% of capacity was idle for nearly 35% of all respondents. The most striking increase since July was reported in aerospace. However, it appears that projected defense production in coming years will absorb the capacity now idle because of sagging airline business worldwide. Indeed, plans to expand capacity are more prevalent in the aerospace industry than in manufacturing generally.

Companies that reported their capital spending plans geared for expansion of capacity accounted for 57% of all respondents' assets in October (Table 2). It was only because of an improvement in the petroleum industry, however, that the all-company average remained above the low of 55% reached in April 1982. Excluding petroleum firms, expansion plans were reported by a record low 51% of respondents, down sharply from 60% in July. There were declines in six of the ten durables industries. Plans to reduce capacity increased in five durables industries but disappeared in petroleum. Excluding petroleum, 8% of respondents reported an intent to reduce capacity, up from 6% in July, but these companies represented only 12 industries, down from 15.

Between July and October, external funds became easier to get for some 15% of the survey companies (Table 5). With the exception of July 1980, this was the most favorable response to the question in more than five years. At the same time, respondents revised upward their anticipated use of external sources for capital spending funds during the current half-year (Table 4). The 18.5% now expected is the highest of the three successive estimates given for this half-year. But this figure, as well as the upward-revised 16.4% for first half 1983, is still below the 18.7% of first half 1982. (The only figures higher than that were 20% in 1970 and 19% in late 1974.)

Product allocations rose very slightly in October: grain storage bins and electronic video cartridges were new to the list. Most of the other items are machinery or paper products.

M. Nichols

TABLE 1. ADEQUACY OF CAPITAL FACILITIES

Percent Distribution of Responding Companies Weighted by Assets

	July 1980	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982
					Inadequate					
All Manufacturing	12.4	12.4	10.5	10.5	9.3	10.1	8.3	8.4	7.9	7.0
Durable goods	15.9	16.7	13.9	16.1	13.2	14.9	13.0	11.4	10.9	11.1
Nondurable goods	9.0	8.6	7.2	6.1	5.7	5.7	4.3	5.9	5.2	3.3
					Sufficient					
All Manufacturing	56.3	57.0	55.0	56.6	50.5	52.8	52.8	45.7	45.0	41.9
Durable goods	46.2	44.0	45.4	49.7	52.1	52.4	50.8	47.6	44.6	39.4
Nondurable goods	66.3	68.4	64.4	62.0	49.1	53.2	54.5	44.1	45.3	44.1
					More Than Adequate					
All Manufacturing	31.2	30.6	34.5	32.9	40.2	37.1	38.9	45.9	47.1	51.1
Durable goods	37.8	39.3	40.7	34.2	34.7	32.7	36.2	41.0	44.5	49.5
Nondurable goods	24.7	22.9	28.4	31.9	45.3	41.1	41.2	50.1	49.6	52.6

TABLE 2. CHANGE IN CAPITAL FACILITIES EXPECTED FROM CURRENT SPENDING PROGRAMS

Percent Distribution of Responding Companies Weighted by Assets

	July 1980	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982
					Expansion					
All Manufacturing	77.3	77.4	71.4	71.1	66.8	71.4	63.9	55.0	56.5	56.8
Durable goods	73.3	74.0	60.8	66.4	62.1	60.9	59.0	55.7	53.3	40.7
Nondurable goods	81.3	80.4	81.9	74.7	71.1	80.8	68.0	54.3	59.5	71.6
					No Change					
All Manufacturing	21.6	22.0	28.2	27.2	32.0	27.2	34.6	41.9	36.1	37.1
Durable goods	25.0	25.9	38.9	31.0	35.7	36.4	38.5	38.7	38.5	46.9
Nondurable goods	18.3	18.6	17.5	24.2	28.6	19.0	31.4	44.8	33.9	28.1
					Reduction					
All Manufacturing	1.1	0.5	0.4	1.7	1.2	1.4	1.5	3.1	7.4	6.1
Durable goods	1.7	0.1	0.3	2.6	2.2	2.7	2.5	5.6	8.2	12.4
Nondurable goods	0.4	0.9	0.5	1.1	0.2	0.2	0.6	0.9	6.7	0.3

TABLE 3. EXTERNAL SUPPLY SHORTAGES

Percent of Companies (weighted by assets) Reporting Lowered Production Because of Shortages

	July 1980	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982
					Raw Materials					
All Manufacturing	3.7	2.3	2.6	0.4	0.4	0.2	0.1	0.0	0.1	0.1
Durable goods	0.6	0.3	0.7	0.3	0.2	0.3	0.3	0.0	0.2	0.2
Nondurable goods	6.7	4.0	4.6	0.5	0.6	0.0	0.0	0.1	0.0	0.0
					Processed Goods					
All Manufacturing	0.2	0.5	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.0
Durable goods	0.3	1.0	0.2	0.5	0.3	0.4	0.2	0.3	0.0	0.0
Nondurable goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
					Both					
All Manufacturing	1.5	1.6	1.2	0.7	0.6	0.3	0.0	0.0	0.0	0.0
Durable goods	1.8	2.0	1.2	1.7	1.1	0.7	0.0	0.0	0.0	0.0
Nondurable goods	1.2	1.2	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0

TABLE 4. ANTICIPATED SOURCES OF FUNDS FOR CAPITAL EXPENDITURES

Percent Distribution of Responding Companies Weighted by Assets

	1979		1980		1981		1982		1983
	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half	Second Half (r-3)	First Half (r-1)
From Internal Sources									
All Manufacturing	89.2	88.6	83.7	83.2	84.3	83.6	81.3	81.5	83.6
Durable goods	89.7	87.9	77.8	83.7	82.4	83.9	79.7	78.3	83.5
Nondurable goods	88.6	89.5	89.2	82.8	85.7	83.4	82.6	84.2	83.8
From External Sources									
All Manufacturing	10.8	11.4	16.3	16.8	15.7	16.4	18.7	18.5	16.4
Durable goods	10.3	12.1	22.2	16.3	17.6	16.1	20.3	21.7	16.5
Nondurable goods	11.4	10.5	10.8	17.2	14.3	16.6	17.4	15.8	16.2

TABLE 5. AVAILABILITY OF EXTERNAL CAPITAL FUNDS COMPARED WITH THREE MONTHS EARLIER

Percent Distribution of Responding Companies

	July 1980	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982
Easier										
All Manufacturing	26.9	6.8	5.4	6.7	3.1	6.0	5.7	4.6	3.5	15.4
Durable goods	26.6	7.4	6.3	7.6	2.5	5.1	5.3	5.4	3.5	17.4
Nondurable goods	27.1	6.0	4.4	5.8	3.7	7.0	6.1	3.7	3.6	13.4
Same										
All Manufacturing	68.9	83.5	86.5	85.1	88.2	85.4	86.5	89.9	89.2	79.2
Durable goods	69.7	81.9	84.7	84.8	90.5	87.3	86.2	89.2	88.6	75.5
Nondurable goods	68.1	85.2	88.3	85.3	85.8	83.4	86.7	90.6	89.8	82.8
Tighter										
All Manufacturing	4.3	9.7	8.1	8.2	8.7	8.6	7.9	5.6	7.3	5.4
Durable goods	3.7	10.6	8.9	7.6	7.0	7.6	8.5	5.4	8.0	7.1
Nondurable goods	4.8	8.8	7.2	8.9	10.5	9.6	7.2	5.8	6.6	3.8

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Manufacturing Investment Statistics

Capital Appropriations

Fourth Quarter 1982

and

Capital Investment and Supply Conditions

January 1983

The Conference Board

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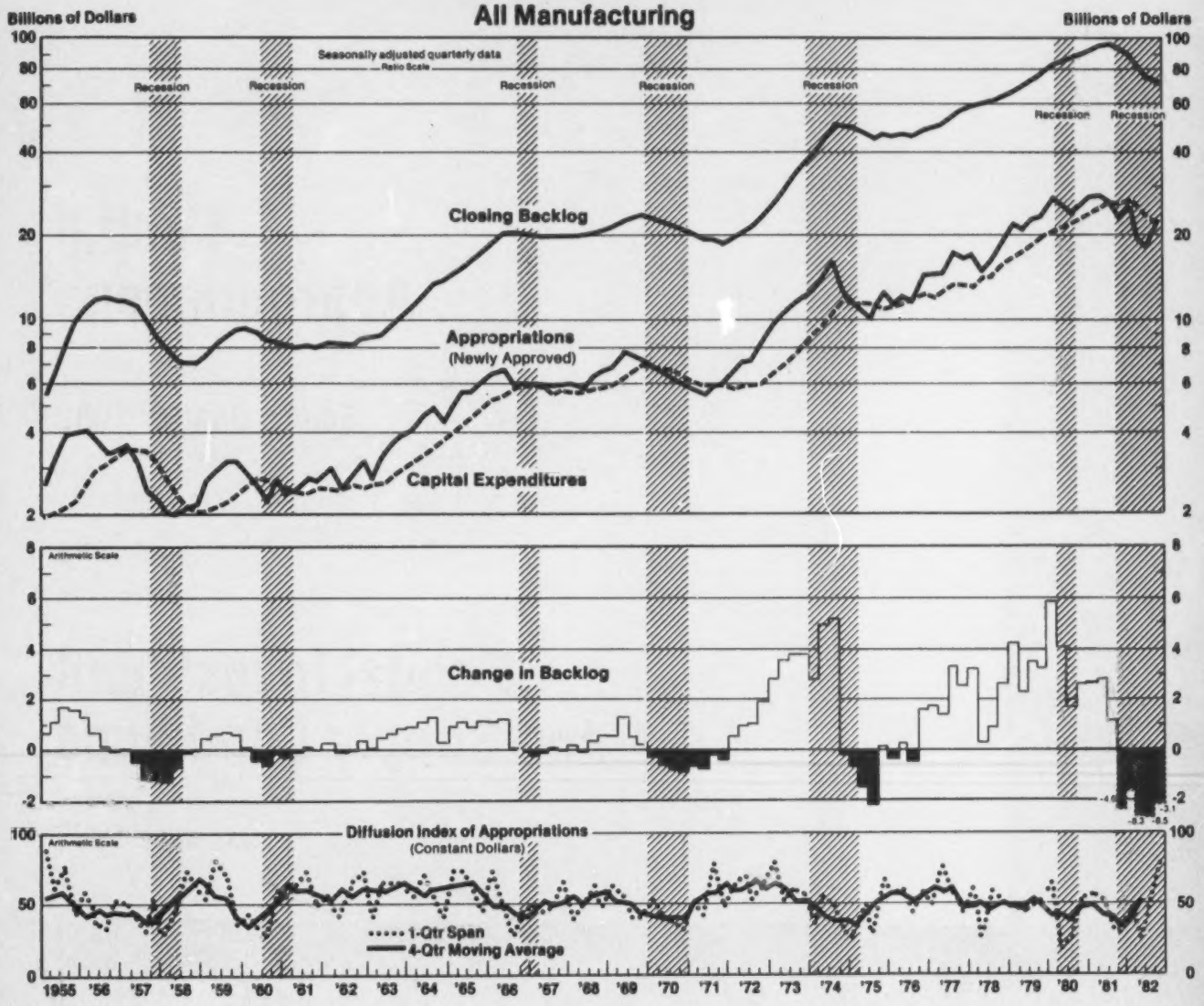
CAPITAL APPROPRIATIONS IN RECESSION AND EXPANSION



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The Conference Board
Quarterly Survey of Capital Appropriations
Fourth Quarter 1982

Capital appropriations of the nation's 1,000 largest manufacturers recovered a bit in the fourth quarter of 1982, but the general outlook for capital investment is subdued. Forecasters expect some economic growth in 1983, but recovery in capital investment normally lags after recovery in the overall economy. Moreover, the economic growth in 1983 is expected to be quite modest, and this is a further reason why capital investment is unlikely to show much strength. Although 1983 will be the third consecutive year of weakness in manufacturing capital investment, the cumulative three-year slump is not unusually severe in comparison with the investment slumps associated with past economic downturns. The important question is what happens in 1984. Current expectations of the large manufacturers suggest that it will be yet another year of weak investment.

Fourth Quarter of 1982

New capital appropriations of the nation's 1,000 largest manufacturers were $21.5 billion (seasonally adjusted) in the fourth quarter, up 16.4% from the third quarter. There was a big rise (26.1%) in petroleum industry appropriations, but the total excluding petroleum was up 12.2% and most individual industries reported increases for the quarter. Exceptions were steel, motor vehicles and textiles; in the latter two, appropriations fell following enormous gains in the third quarter. The downturn in steel (31%) might have been even steeper had there not been a change in the sample between the third and fourth quarters. Appropriations fell in four of the five quarters preceding the fourth quarter of 1982. Therefore, despite the gain in the fourth quarter, appropriations were 23% below the peak reached in the second quarter of 1981 (25% below the peak excluding petroleum).

Cancellations and adjustments of previously approved appropriations totaled $2.0 billion in the fourth quarter. This was the second largest quarterly cancellations figure, the record of $3.1 billion having been set in the third quarter. The decline largely reflects a drop in motor vehicle industry cancellations, back to a more or less normal level following a huge jump in the third quarter. Industries in which fourth-quarter cancellations were noticeably above the normal range include fabricated metals, paper, chemicals and petroleum. With overall fourth-quarter cancellations of $2.0 billion, net new capital appropriations in the quarter totaled $19.6 billion (seasonally adjusted), up 27.0% from the third quarter. Excluding petroleum, net appropriations rose 26.4%. Net appropriations peaked in the third quarter of 1981 and are down 29% from then. Gross appropriations peaked in the second quarter of 1981 and have dropped 23% since then.

The 1,000 largest manufacturers' capital outlays fell 5.1% in the fourth quarter to $22.7 billion (seasonally adjusted). Excluding petroleum, the drop was 2.3%. Both including and excluding petroleum, the latest decline was the fourth in five quarters. Notably persistent declines in capital spending have been recorded in motor vehicles (down for five consecutive quarters), chemicals (four consecutive quarters), and steel, fabricated metals and petroleum (each down for three consecutive quarters).

Capital outlays of $22.7 billion in the fourth quarter were $3.1 billion larger than the net new appropriations of $19.6 billion. Consequently, the backlog of unspent appropriations fell $3.1 billion to $71.2 billion. This was the fifth consecutive drop in the backlog and put it 27% below the peak reached in the third quarter of 1981. During 1982, when the total backlog fell 23%, the sharpest percentage declines were in steel (-48%), motor vehicles (-45%), "other" durables (-45%), fabricated metals (-37%) and nonelectrical machinery (-36%).

The Year 1982 and Outlook for 1983

For the full year 1982, capital appropriations of the 1,000 largest manufacturers totaled $87.6 billion, down 18.1% from 1981. This was the first year-to-year decline since 1975, and followed a mere 2.2% rise in 1981. In 1980 and 1979, appropriations rose 18.2% and 31.8%, respectively. Excluding petroleum, manufacturers' appropriations in 1982 fell 21.0%, following a small drop of 2.4% in 1981 and a small rise of 4.0% in 1980. The 1,000 companies' capital spending dropped 2.7% in 1982 to $98.6 billion, following big gains in the preceding three years. Petroleum industry spending was an important element in the big 1981 gain in total spending and was a plus factor again in 1982, although a modest one. Excluding petroleum, the large companies' capital outlays dropped 5.9% in 1982 following a rise of only 5.7% in 1981.

The earliest reading on the 1,000 largest manufacturers' expectations for 1983 appropriations, reported three months ago, pointed to a 22% rise and that seemed exceptionally strong. The latest expectations are for a more modest 12% rise in appropriations this year, with the strength concentrated in petroleum (up 21%, compared with only 6% for nonpetroleum companies). The outlook for spending is subdued, with petroleum outlays and total nonpetroleum outlays both expected to be down slightly (1% to 2%). This spending prospect is consistent with the initial 1983 survey of the Commerce Department's Bureau of Economic Analysis. The weak spending expectation for 1983 reflects the weakness of appropriations in late 1981 and 1982. The expected rise in appropriations in 1983, if realized, will mostly flow into actual spending in 1984 and beyond. However, that expected appropriations gain is so modest that it would not translate into much of a boost to 1984 spending, at least outside the petroleum industry. Consequently 1984 could turn out to be the fourth consecutive soft year for manufacturing capital investment. If that is the case, there might be negative consequences for American manufacturing's productivity and cost-competitiveness. However, it is too early to be very sure about this, for an improving economy in 1983 could easily boost appropriations above the level now expected.

Thus far, however, the drop in capital investment has not been unusually severe relative to performance during past economic slumps. In real terms, spending should be down 4% or 5% in 1983. This is indicated both for the total and for the petroleum and nonpetroleum segments separately, but historical comparisons are probably best made without the large and volatile petroleum industry. On that basis, the indicated total drop in real spending in the three years 1981, 1982 and 1983 is about 15%. The real decline was 13% in the two years 1975-1976, over 20% in 1970-1972, 10% in 1961, and 40% in the two years 1958-1959.

Lora S. Collins

TABLE 1. PERCENT CHANGES IN CAPITAL APPROPRIATIONS AND EXPENDITURES
Seasonally Adjusted Data in Current and Constant (1972) Dollars

	Current Dollars				Constant Dollars			
	I-82 to II-82	II-82 to III-82	III-82 to IV-82	IV-81 to IV-82	I-82 to II-82	II-82 to III-82	III-82 to IV-82	IV-81 to IV-82
				—APPROPRIATIONS—				
ALL MANUFACTURING	—25.0	— 4.4	16.4	— 6.4	—22.7	— 2.7	16.4	— 6.4
ALL MFG. EX PETROLEUM	—17.5	1.9	12.2	—10.1	—20.6	3.1	14.7	—10.5
DURABLE GOODS	—13.5	3.2	9.9	—13.1	—16.1	3.8	13.1	—13.4
*Primary iron & steel	—53.7	4.0	—31.3	—76.8	—53.7	4.4	—31.0	—76.3
Primary nonferrous metals	—47.6	67.3	25.7	—33.8	—48.9	71.8	22.3	—33.1
Electrical machinery & equipment	11.5	—3.0	5.0	22.5	12.9	— 3.3	4.9	20.1
Nonelectrical machinery	—16.9	—12.2	41.6	—25.6	—21.9	—10.9	49.2	—26.2
Motor vehicles & equipment	49.2	69.7	—40.0	106.8	48.6	70.4	—38.0	105.4
Other transportation equipment	—15.8	—29.5	51.6	29.5	—21.2	—29.7	62.6	36.4
Stone, clay & glass	—17.5	41.1	36.5	25.7	—20.5	44.9	35.9	24.3
Fabricated metals	—11.7	—25.3	35.9	—53.5	—12.4	—26.4	40.6	—53.3
Instruments & photo equipment	—30.7	15.2	8.3	—15.3	—32.3	15.3	11.4	—15.1
Other durable goods†	—29.9	—52.1	— 0.8	—23.6	—28.8	—55.0	10.8	—21.8
NONDURABLE GOODS	—30.6	— 9.0	20.9	— 1.7	—26.3	— 6.7	18.8	1.2
Food & beverages	3.2	—28.9	61.4	53.9	— 2.3	—27.7	61.0	50.6
Textiles	33.5	49.8	—56.3	—34.3	31.6	54.4	—56.9	—34.6
Paper & allied products	—78.0	19.8	17.1	—54.8	—78.5	21.1	16.1	—54.3
Chemicals & allied products	— 1.3	5.4	7.4	— 5.1	— 7.5	9.1	11.6	— 3.6
Petroleum & coal products	—35.8	—16.2	26.1	1.9	—26.3	—13.8	20.3	3.8
Rubber products	— 6.8	—11.9	27.6	41.8	— 0.5	—11.3	27.8	37.0
Other nondurable goods†	7.1	18.9	6.9	— 2.7	10.0	15.8	8.8	— 5.8
				—EXPENDITURES—				
ALL MANUFACTURING	— 4.4	— 7.0	— 5.1	—13.3	— 2.2	— 5.5	— 4.9	—12.7
ALL MFG. EX PETROLEUM	— 3.9	— 8.2	— 2.3	—13.4	— 6.8	— 7.3	0.3	—13.2
DURABLE GOODS	— 4.5	— 9.7	— 5.4	—16.9	— 6.8	— 9.4	— 2.4	—16.7
*Primary iron & steel	—12.3	—13.6	—19.4	—29.4	—12.2	—13.2	—19.1	—27.6
Primary nonferrous metals	—12.5	—17.0	2.7	—31.4	—14.6	—14.7	— 0.1	—30.6
Electrical machinery & equipment	— 5.0	— 5.3	11.1	12.4	— 3.9	— 5.5	10.9	10.1
Nonelectrical machinery	3.6	—11.1	—16.9	—25.5	— 2.6	— 9.8	—12.5	—26.0
Motor vehicles & equipment	— 9.6	—19.4	— 8.4	—35.0	— 9.9	—19.1	— 5.4	—35.3
Other transportation equipment	4.7	9.5	5.8	0.7	— 2.0	9.2	13.5	6.2
Stone, clay & glass	—13.2	3.1	1.4	— 2.9	—16.4	5.9	0.9	— 3.8
Fabricated metals	— 7.2	— 9.5	— 8.4	—16.3	— 8.0	—10.9	— 5.2	—16.0
Instruments & photo equipment	2.1	— 2.7	— 2.6	— 1.1	— 0.4	— 2.6	0.1	— 0.8
Other durable goods†	—19.4	—24.7	11.2	—19.8	—18.1	—29.3	24.2	—18.0
NONDURABLE GOODS	— 4.4	— 5.1	— 4.9	—10.6	1.4	— 2.8	— 6.5	— 9.7
Food & beverages	1.8	— 9.2	2.4	— 8.6	— 3.6	— 7.6	2.1	—10.5
Textiles	12.5	— 5.6	12.5	0.3	10.9	— 2.7	10.9	0.7
Paper & allied products	1.9	— 0.4	8.4	7.4	— 0.2	0.6	7.5	8.5
Chemicals & allied products	— 7.1	— 4.6	— 1.0	—13.2	—12.9	— 1.2	2.8	—11.8
Petroleum & coal products	— 5.4	— 4.7	—10.6	—13.1	8.6	— 2.0	—14.7	—11.5
Rubber products	8.4	— 8.3	28.5	1.9	15.7	— 7.6	28.7	— 0.9
Other nondurable goods†	— 9.4	— 8.4	0.4	— 5.9	— 7.0	—10.7	2.3	— 9.0

See General Notes on page 7.

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES

Seasonally Adjusted Quarterly Data in Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	I-82	II-82	III-82	IV-82	I-82	II-82	III-82	IV-82
ALL MANUFACTURING								
Opening backlog	92,739	91,110	82,821	74,294	83,640	82,732	78,605	74,319
Newly approved	25,767	19,331	18,482	21,517	12,394	9,579	9,318	10,850
Canceled	472	1,886	3,083	1,959	236	932	1,537	985
Capital expenditure	26,924	25,734	23,926	22,700	13,066	12,774	12,067	11,479
Closing backlog	91,110	82,821	74,294	71,152	82,732	78,605	74,319	72,704
DURABLE GOODS								
Opening backlog	39,848	36,854	32,689	28,422	38,129	36,609	34,521	32,391
Newly approved	8,446	7,308	7,543	8,287	4,346	3,646	3,783	4,277
Canceled	279	810	2,181	518	144	404	1,081	270
Capital expenditure	11,161	10,663	9,629	9,108	5,722	5,330	4,831	4,716
Closing backlog	36,854	32,689	28,422	27,083	36,609	34,521	32,391	31,682
•Primary iron & steel								
Opening backlog	5,438	4,985	4,114	3,412	6,204	5,961	5,494	5,115
Newly approved	711	329	342	235	381	177	184	127
Canceled	38	212	190	129	20	114	102	70
Capital expenditure	1,126	988	854	688	604	530	460	373
Closing backlog	4,985	4,114	3,412	2,830	5,961	5,494	5,115	4,800
Primary nonferrous metals								
Opening backlog	3,6[illegible]2	3,548	3,294	3,128	3,706	3,651	3,521	3,433
Newly approved	315	165	276	347	166	85	145	178
Canceled	—85	—22	76	—45	—45	—11	40	—23
Capital expenditure	504	441	366	376	265	226	193	193
Closing backlog	3,548	3,294	3,128	3,144	3,651	3,521	3,433	3,441
Electrical machinery & equipment								
Opening backlog	3,512	3,254	3,287	3,259	3,891	3,759	3,776	3,761
Newly approved	1,448	1,615	1,566	1,645	741	837	810	849
Canceled	57	16	111	—162	29	8	57	—84
Capital expenditure	1,649	1,566	1,483	1,648	844	811	767	850
Closing backlog	3,254	3,287	3,259	3,418	3,759	3,776	3,761	3,843
Nonelectrical machinery								
Opening backlog	8,627	7,973	6,643	5,408	6,997	6,663	6,026	5,425
Newly approved	2,434	2,022	1,775	2,513	1,242	970	864	1,288
Canceled	120	277	277	136	61	133	135	70
Capital expenditure	2,968	3,075	2,733	2,270	1,515	1,475	1,330	1,164
Closing backlog	7,973	6,643	5,408	5,515	6,663	6,026	5,425	5,479
Motor vehicles & equipment								
Opening backlog	8,151	7,008	6,049	4,963	7,225	6,669	6,205	5,676
Newly approved	600	895	1,519	912	292	434	739	458
Canceled	18	295	1,349	211	9	143	656	106
Capital expenditure	1,725	1,559	1,256	1,151	839	755	611	578
Closing backlog	7,008	6,049	4,963	4,513	6,669	6,205	5,676	5,450
Other transportation equipment								
Opening backlog	2,251	2,377	2,424	2,131	2,148	2,212	2,234	2,095
Newly approved	937	789	556	843	478	377	265	431
Canceled	88	—15	20	9	45	—7	10	5
Capital expenditure	723	757	829	877	369	362	395	448
Closing backlog	2,377	2,424	2,131	2,088	2,212	2,234	2,095	2,073
Stone, clay & glass								
Opening backlog	1,931	1,770	1,607	1,548	2,164	2,078	1,994	1,962
Newly approved	348	287	405	553	187	148	215	292
Canceled	32	36	37	33	17	19	20	17
Capital expenditure	477	414	427	433	256	214	227	229
Closing backlog	1,770	1,607	1,548	1,635	2,078	1,994	1,962	2,008
Fabricated metals								
Opening backlog	1,941	1,781	1,652	1,447	1,804	1,720	1,654	1,549
Newly approved	300	265	198	269	156	137	101	142
Canceled	18	—16	32	152	9	—8	16	80
Capital expenditure	442	410	371	340	230	212	189	179
Closing backlog	1,781	1,652	1,447	1,224	1,720	1,654	1,549	1,432

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES (continued)

	Current Dollars				Constant (1972) Dollars			
	I-82	II-82	III-82	IV-82	I-82	II-82	III-82	IV-82
Instruments & photo equipment								
Opening backlog	2,239	2,208	1,913	1,687	1,816	1,799	1,648	1,533
Newly approved	975	676	779	844	511	346	399	444
Canceled	47	—8	52	35	25	—4	27	18
Capital expenditure	959	979	953	928	503	501	488	488
Closing backlog	2,208	1,913	1,687	1,568	1,799	1,648	1,533	1,470
Other durable goods†								
Opening backlog	2,106	1,950	1,706	1,439	2,175	2,096	1,971	1,841
Newly approved	378	265	127	126	192	136	61	68
Canceled	—54	35	37	20	—27	18	18	11
Capital expenditure	588	474	357	397	298	244	172	214
Closing backlog	1,950	1,706	1,439	1,148	2,096	1,971	1,841	1,684
NONDURABLE GOODS								
Opening backlog	52,891	54,256	50,132	45,872	45,512	46,123	44,084	41,927
Newly approved	17,321	12,023	10,939	13,230	8,048	5,934	5,535	6,573
Canceled	193	1,076	902	1,441	93	529	456	715
Capital expenditure	15,763	15,071	14,297	13,592	7,344	7,444	7,235	6,763
Closing backlog	54,256	50,132	45,872	44,069	46,123	44,084	41,927	41,022
Food & beverages								
Opening backlog	3,781	3,552	3,542	3,178	3,974	3,855	3,850	3,667
Newly approved	1,451	1,497	1,064	1,717	755	738	534	860
Canceled	163	—38	25	85	85	—19	13	43
Capital expenditure	1,517	1,545	1,403	1,436	790	762	704	719
Closing backlog	3,552	3,542	3,178	3,374	3,855	3,850	3,667	3,766
Textiles								
Opening backlog	842	766	720	807	854	814	790	836
Newly approved	182	243	364	159	95	126	194	83
Canceled	18	19	22	14	9	10	12	7
Capital expenditure	240	270	255	287	126	139	136	151
Closing backlog	766	720	807	665	814	790	836	762
Paper & allied products								
Opening backlog	5,088	6,353	5,953	5,621	4,441	5,117	4,908	4,732
Newly approved	2,116	465	557	652	1,131	243	295	342
Canceled	—29	—32	—4	311	—15	—17	—2	163
Capital expenditure	880	897	893	968	470	469	472	508
Closing backlog	6,353	5,953	5,621	4,994	5,117	4,908	4,732	4,403
Chemicals & allied products								
Opening backlog	9,435	8,705	8,071	7,681	9,330	8,951	8,643	8,446
Newly approved	2,265	2,236	2,357	2,532	1,175	1,087	1,187	1,324
Canceled	—54	36	44	138	—28	18	22	72
Capital expenditure	3,049	2,834	2,703	2,675	1,582	1,378	1,361	1,399
Closing backlog	8,705	8,071	7,681	7,400	8,951	8,643	8,446	8,299
Petroleum and coal products								
Opening backlog	29,676	30,986	28,057	24,681	23,411	23,971	22,532	20,827
Newly approved	10,481	6,726	5,639	7,111	4,487	3,305	2,849	3,428
Canceled	77	1,050	815	923	33	516	412	445
Capital expenditure	9,094	8,605	8,200	7,333	3,893	4,228	4,142	3,535
Closing backlog	30,986	28,057	24,681	23,536	23,971	22,532	20,827	20,275
Rubber products								
Opening backlog	869	924	913	912	1,019	1,045	1,039	1,039
Newly approved	207	193	170	217	99	98	87	111
Canceled	—14	24	6	—38	—7	12	3	—19
Capital expenditure	166	180	165	212	79	91	84	109
Closing backlog	924	913	912	955	1,045	1,039	1,039	1,061
Other nondurable goods†								
Opening backlog	3,200	2,970	2,876	2,992	2,484	2,370	2,322	2,379
Newly approved	619	663	788	842	306	337	390	425
Canceled	32	17	—6	8	16	9	—3	4
Capital expenditure	817	740	678	681	404	376	336	343
Closing backlog	2,970	2,876	2,992	3,145	2,370	2,322	2,379	2,457

See General Notes on page 7.

TABLE 3. PROPORTION OF APPROPRIATIONS FOR PLANT
Percent

	80-IV	81-I	81-II	81-III	81-IV	82-I	82-II	82-III	82-IV
ALL MANUFACTURING	19	21	20	19	18	20	25	23	17
DURABLE GOODS	15	19	21	19	18	21	25	24	17
Primary iron and steel	6	6	14	38	12	8	3	3	2
Primary nonferrous metals	24	20	20	16	24	14	17	10	19
Electrical machinery & equipment	19	16	19	16	13	22	14	16	17
Nonelectrical machinery	8	19	25	13	19	23	37	34	19
Motor vehicles & equipment	16	30	30	24	26	37	34	34	25
Other transportation equipment	32	27	24	25	38	23	38	40	20
Stone, clay & glass	28	10	7	19	9	8	15	8	10
Fabricated metals	16	16	13	30	14	17	15	21	11
Instruments & photo equipment	9	10	15	20	14	15	18	19	11
Other durable goods	17	17	20	17	13	25	16	36	3
NONDURABLE GOODS	24	23	17	18	19	19	26	21	17
Food & beverages	26	20	21	23	22	17	29	25	26
Textiles	12	16	22	14	14	15	15	7	12
Paper & allied products	11	14	3	6	17	9	11	9	12
Chemicals & allied products	29	22	14	20	20	18	33	24	13
Rubber products	6	21	19	13	12	43	20	19	19
Other nondurable goods	20	23	42	26	16	32	20	29	24

Based on data from those companies that report appropriations for plant and equipment separately. The composition of this group varies slightly from quarter to quarter. Petroleum industry is excluded. Historical data from 1959 available on request.

See also General Notes on page 7.

TABLE 4. PERCENT CHANGE IN CAPITAL APPROPRIATIONS AND EXPENDITURES: 1981 AND 1982 ACTUAL, 1983 EXPECTED*

	Appropriations			Expenditures		
	1981	1982	1983	1981	1982	1983
All Manufacturing	2	—18	12	15	—3	— 1
All Manufacturing except Petroleum	—2	—21	6	6	—6	— 1
Durable goods	—5	—25	10	4	—6	—15
Nondurable goods	7	—14	12	24	0	8
Petroleum	12	—13	21	42	4	— 2
Other	2	—15	1	8	—5	22

*Based on survey respondents' own expectations.

See also General Notes on page 7.

TABLE 5. CAPITAL APPROPRIATIONS AND EXPENDITURES, ANNUAL TOTALS
In Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	1979	1980	1981	1982	1979	1980	1981	1982
				—APPROPRIATIONS—				
ALL MANUFACTURING	88,519	104,631	106,956	87,589	52,469	58,497	55,029	
ALL MFG. EX. PETROLEUM	68,993	71,756	70,052	55,339	41,380	40,215	37,056	
DURABLE GOODS	43,339	44,271	42,146	31,661	26,088	24,893	22,357	
Primary iron & steel	3,559	2,889	5,210	1,562	2,175	1,663	2,736	
Primary nonferrous metals	1,941	3,384	2,482	1,128	1,163	1,883	1,497	
Electrical machinery & equipment	5,859	6,544	5,787	6,264	3,535	3,668	3,073	
Nonelectrical machinery	10,236	9,368	12,700	8,786	6,183	5,324	6,674	
Motor vehicles & equipment	8,129	7,110	3,489	3,914	4,897	3,985	1,796	
Other transportation equipment	3,817	4,201	3,099	3,237	2,246	2,293	1,589	
Stone, clay & glass	2,367	2,043	2,094	1,581	1,449	1,178	1,126	
Fabricated metals	1,846	1,571	1,765	1,048	1,125	881	931	
Instruments & photo equipment	2,925	3,114	4,273	3,298	1,765	1,782	2,273	
Other durable goods†	2,660	4,047	1,247	843	1,549	2,236	663	
NONDURABLE GOODS	45,180	60,360	64,810	55,928	26,381	33,604	32,672	
Food & beverages	6,640	6,603	5,772	5,734	3,938	3,706	3,022	
Textiles	960	999	1,150	954	574	568	610	
Paper & allied products	3,979	3,576	5,010	4,008	2,440	2,050	2,704	
Chemicals & allied products	10,725	12,170	12,019	9,376	6,346	6,718	6,328	
Petroleum & coal products	19,526	32,875	36,904	32,250	11,089	18,282	17,973	
Rubber products	1,057	902	813	784	645	524	431	
Other nondurable goods†	2,293	3,235	3,142	2,822	1,350	1,756	1,603	
				—EXPENDITURES—				
ALL MANUFACTURING	73,126	88,209	101,341	98,625	43,290	49,327	51,949	
ALL MFG. EX. PETROLEUM	56,250	65,981	69,763	65,647	33,694	36,967	36,646	
DURABLE GOODS	35,230	41,056	42,871	40,225	21,173	23,070	22,505	
Primary iron & steel	3,243	3,458	3,405	3,545	1,973	1,992	1,797	
Primary nonferrous metals	1,685	2,411	2,386	1,667	1,005	1,334	1,252	
Electrical machinery & equipment	4,918	6,271	6,069	6,354	2,965	3,506	3,225	
Nonelectrical machinery	8,400	9,826	11,289	10,947	5,060	5,569	5,939	
Motor vehicles & equipment	5,335	5,555	6,688	5,612	3,213	3,109	3,429	
Other transportation equipment	2,908	4,039	3,464	3,204	1,710	2,186	1,770	
Stone, clay & glass	2,407	2,289	1,886	1,743	1,472	1,317	1,016	
Fabricated metals	1,614	1,568	1,515	1,547	982	883	799	
Instruments & photo equipment	2,389	2,889	3,629	3,815	1,443	1,653	1,931	
Other durable goods†	2,331	2,750	2,540	1,791	1,346	1,521	1,347	
NONDURABLE GOODS	37,896	47,153	58,470	58,400	22,117	26,257	29,443	
Food & beverages	5,037	6,014	6,744	5,895	2,989	3,370	3,523	
Textiles	763	900	1,039	1,050	459	508	550	
Paper & allied products	3,018	3,859	3,746	3,650	1,841	2,199	2,025	
Chemicals & allied products	9,309	10,918	11,785	11,205	5,506	6,021	6,199	
Petroleum & coal products	16,876	22,228	31,578	32,978	9,595	12,360	15,303	
Rubber products	963	801	749	722	588	465	398	
Other nondurable goods†	1,930	2,433	2,829	2,900	1,139	1,333	1,445	

1982 constant-dollar data will be published later in 1983.

Each annual figure is the sum of not-seasonally-adjusted quarterly figures, and may not equal the sum of seasonally adjusted quarterly figures.

GENERAL NOTES

Data for 1982-III are revised; data for 1982-IV are preliminary. 1982 totals are preliminary.

* A significant change in the sample creates discontinuity between IV-82 and prior estimates of appropriations and expenditures in primary iron and steel.

All estimates are based on a survey and are for the survey population, which is composed of the 1,000 largest manufacturing companies as ranked by total assets in 1979.

Historical data from 1953 available on request from the Business Conditions Analysis Department: (1) quarterly series seasonally adjusted; (2) quarterly series not seasonally adjusted; (3) annual series.

†Other durables includes lumber, furniture and fixtures, and miscellaneous manufactures; other nondurables includes tobacco, apparel, printing and publishing, and leather.

The Conference Board

Quarterly Survey of Capital Investment and Supply Conditions in Manufacturing

January 1983

There was only one apparent improvement between October and January in the capital investment outlook of the large manufacturers reporting to the Quarterly Survey of Capital Investment and Supply Conditions. That is the prospect of obtaining more funds for capital spending from internal sources this year and reducing their reliance on external funds. The other indicators tracked in this survey—current capacity usage, plans to expand capacity, and any stimulation of demand signaled by shortages of supply or production—continued to weaken. Response to the qualitative questions of this survey was clearly weaker than the response to the quantitative questions of the capital appropriations survey, suggesting perhaps that facts change faster than perceptions around business-cycle turning points.

Since April 1982, the large manufacturers have been reporting "more than adequate" capacity above the earlier record (42% of respondents in January 1976), and each succeeding survey has shown a new high for this figure. In the January 1983 survey, it was 53% (weighted by company assets, Table 1). And about two-fifths of all January respondents reported at least 20% of their capacity unused; this is a wider incidence of deep underutilization than reported in October. However, excess capacity declined from October to January in almost as many industries as reported a rise. More idle facilities in motor vehicles and fabricated metals were nearly matched by improved utilization in the instruments, electrical machinery, rubber, and paper industries.

Confirming the sharp fourth-quarter drop in "proportion of appropriations for plant" (see table on page 6), programs aimed at increasing manufacturing capacity were reported by only 46% (48% excluding petroleum) of respondents to the January survey (Table 2). This figure has never before dropped below 50%. It had averaged 85% from the start of the survey in 1965 up to January 1975, when a sudden drop to 70% ushered in seven less expansionary years, although the figure ranged between 70% and 80% until last year. The January 1983 drop was most pronounced in petroleum and four other nondurables industries, electrical machinery, stone-clay-glass, and instruments. But increases in planned expansion were reported in motor vehicles and other transportation equipment. The petroleum industry largely accounted for the higher incidence of planned reduction of facilities.

Product allocations and external supply shortages were at an all-survey low in January.

Together with continued easing in external funds availability, the latest survey found widespread downward revisions (to 13.9% overall) in anticipated resort to external funds in the first half of this year, and a further decline to 12.1% in the second half—the lowest figure since 1979 (Table 4). The implication is that companies will enjoy an improved internal cash flow in 1983.

M. Nichols

TABLE 1. ADEQUACY OF CAPITAL FACILITIES

Percent Distribution of Responding Companies Weighted by Assets

	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983
					Inadequate					
All Manufacturing	12.4	10.5	10.5	9.3	10.1	8.3	8.4	7.9	7.0	6.8
Durable goods	16.7	13.9	16.1	13.2	14.9	13.0	11.4	10.9	11.1	10.2
Nondurable goods	8.6	7.2	6.1	5.7	5.7	4.3	5.9	5.2	3.3	3.7
					Sufficient					
All Manufacturing	57.0	55.0	56.6	50.5	52.8	52.8	45.7	45.0	41.9	39.8
Durable goods	44.0	45.4	49.7	52.1	52.4	50.8	47.6	44.6	39.4	34.0
Nondurable goods	68.4	64.4	62.0	49.1	53.2	54.5	44.1	45.3	44.1	45.0
					More Than Adequate					
All Manufacturing	30.6	34.5	32.9	40.2	37.1	38.9	45.9	47.1	51.1	53.4
Durable goods	39.3	40.7	34.2	34.7	32.7	36.2	41.0	44.5	49.5	55.9
Nondurable goods	22.9	28.4	31.9	45.3	41.1	41.2	50.1	49.6	52.6	51.3

TABLE 2. CHANGE IN CAPITAL FACILITIES EXPECTED FROM CURRENT SPENDING PROGRAMS

Percent Distribution of Responding Companies Weighted by Assets

	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983
					Expansion					
All Manufacturing	77.4	71.4	71.1	66.8	71.4	63.9	55.0	56.5	56.8	46.1
Durable goods	74.0	60.8	66.4	62.1	60.9	59.0	55.7	53.3	40.7	39.9
Nondurable goods	80.4	81.9	74.7	71.1	80.8	68.0	54.3	59.5	71.6	51.7
					No Change					
All Manufacturing	22.0	28.2	27.2	32.0	27.2	34.6	41.9	36.1	37.1	44.4
Durable goods	25.9	38.9	31.0	35.7	36.4	38.5	38.7	38.5	46.9	49.3
Nondurable goods	18.6	17.5	24.2	28.6	19.0	31.4	44.8	33.9	28.1	40.0
					Reduction					
All Manufacturing	0.5	0.4	1.7	1.2	1.4	1.5	3.1	7.4	6.1	9.6
Durable goods	0.1	0.3	2.6	2.2	2.7	2.5	5.6	8.2	12.4	10.8
Nondurable goods	0.9	0.5	1.1	0.2	0.2	0.6	0.9	6.7	0.3	8.4

TABLE 3. EXTERNAL SUPPLY SHORTAGES

Percent of Companies (weighted by assets) Reporting Lowered Production Because of Shortages

	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983
					Raw Materials					
All Manufacturing	2.3	2.6	0.4	0.4	0.2	0.1	0.0	0.1	0.1	0.0
Durable goods	0.3	0.7	0.3	0.2	0.3	0.3	0.0	0.2	0.2	0.0
Nondurable goods	4.0	4.6	0.5	0.6	0.0	0.0	0.1	0.0	0.0	0.0
					Processed Goods					
All Manufacturing	0.5	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.0
Durable goods	1.0	0.2	0.5	0.3	0.4	0.2	0.3	0.0	0.0	0.0
Nondurable goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
					Both					
All Manufacturing	1.6	1.2	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0
Durable goods	2.0	1.2	1.7	1.1	0.7	0.0	0.0	0.0	0.0	0.0
Nondurable goods	1.2	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 4. ANTICIPATED SOURCES OF FUNDS FOR CAPITAL EXPENDITURES

Percent Distribution of Responding Companies Weighted by Assets

	1979		1980		1981		1982		1983	
	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half (r-2)	Second Half (p)
From Internal Sources										
All Manufacturing	89.2	88.6	83.7	83.2	84.3	83.6	81.3	81.5	86.1	87.9
Durable goods	89.7	87.9	77.8	83.7	82.4	83.9	79.7	78.3	81.4	84.0
Nondurable goods	88.6	89.5	89.2	82.8	85.7	83.4	82.6	84.2	89.8	91.1
From External Sources										
All Manufacturing	10.8	11.4	16.3	16.8	15.7	16.4	18.7	18.5	13.9	12.1
Durable goods	10.3	12.1	22.2	16.3	17.6	16.1	20.3	21.7	18.6	16.0
Nondurable goods	11.4	10.5	10.8	17.2	14.3	16.6	17.4	15.8	10.2	8.9

TABLE 5. AVAILABILITY OF EXTERNAL CAPITAL FUNDS COMPARED WITH THREE MONTHS EARLIER

Percent Distribution of Responding Companies

	Oct. 1980	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983
Easier										
All Manufacturing	6.8	5.4	6.7	3.1	6.0	5.7	4.6	3.5	15.4	16.6
Durable goods	7.4	6.3	7.6	2.5	5.1	5.3	5.4	3.5	17.4	19.9
Nondurable goods	6.0	4.4	5.8	3.7	7.0	6.1	3.7	3.6	13.4	13.2
Same										
All Manufacturing	83.5	86.5	85.1	88.2	85.4	86.5	89.9	89.2	79.2	78.3
Durable goods	81.9	84.7	84.8	90.5	87.3	86.2	89.2	88.6	75.5	74.4
Nondurable goods	85.2	88.3	85.3	85.8	83.4	86.7	90.6	89.8	82.8	82.4
Tighter										
All Manufacturing	9.7	8.1	8.2	8.7	8.6	7.9	5.6	7.3	5.4	5.1
Durable goods	10.6	8.9	7.6	7.0	7.6	8.5	5.4	8.0	7.1	5.8
Nondurable goods	8.8	7.2	8.9	10.5	9.6	7.2	5.8	6.6	3.8	4.4

Please Note: In the interest of speeding the data contained in this publication to you, these series are now available on-line through The Conference Board Data Base. For more information, call Linette Stein Waters at (212) 759-0900.

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Capital Appropriations

First Quarter 1983

and

Capital Investment and Supply Conditions

April 1983

The Conference Board
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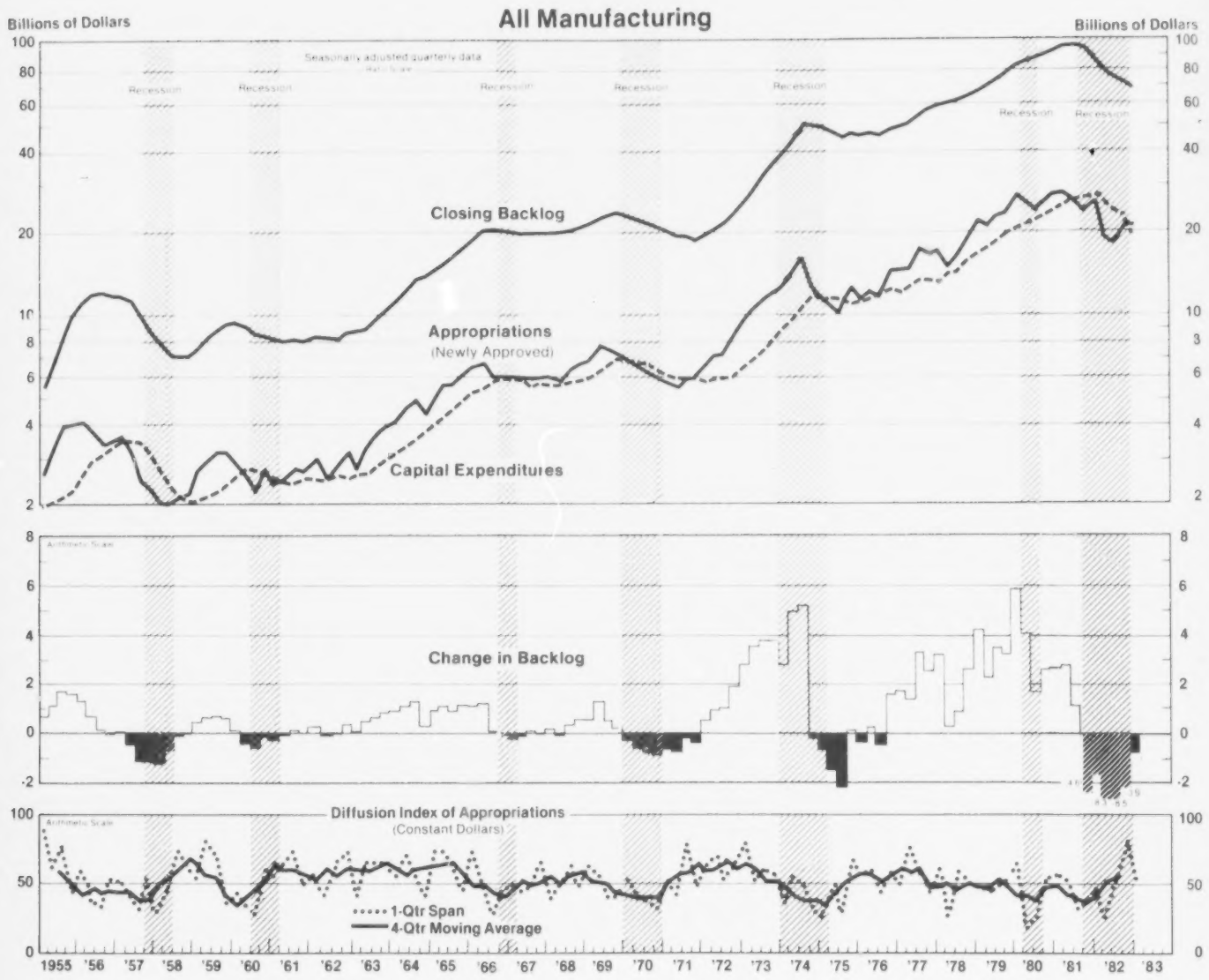
CAPITAL APPROPRIATIONS IN RECESSION AND EXPANSION


All Manufacturing
Billions of Dollars
Billions of Dollars
Seasonally adjusted quarterly data
Recession
Closing Backlog
Appropriations
(Newly Approved)
Capital Expenditures
Change in Backlog
Diffusion Index of Appropriations
(Constant Dollars)
1-Qtr Span
4-Qtr Moving Average
1955 '56 '57 '58 '59 '60 '61 '62 '63 '64 '65 '66 '67 '68 '69 '70 '71 '72 '73 '74 '75 '76 '77 '78 '79 '80 '81 '82 '83

Surveys conducted by Margaret M. Nichols
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The Conference Board
Quarterly Survey of Capital Appropriations
First Quarter 1983

Capital appropriations of the nation's 1,000 largest manufacturers in the first quarter of 1983 were unchanged from the fourth quarter of 1982. The petroleum industry, whose appropriations are very large and quite volatile from quarter to quarter, reported a considerable rise in the first quarter while nonpetroleum appropriations dropped 8 percent. The big manufacturers' capital expenditures fell 13% in the quarter, a substantial drop and the fourth consecutive quarterly decline.

The 1,000 companies' expectations for capital investment in 1983 are very modest. They look for spending to drop 5% and appropriations to rise a mere 6 percent. That 6% advance would not support much growth of capital spending in 1984. Thus, 1984 could prove to be yet another year of weak investment.

First Quarter of 1983

The 1,000 largest manufacturers' new capital appropriations were $21.0 billion (seasonally adjusted) in the first quarter, down 0.4% from the downward-revised fourth-quarter figure. (Fourth-quarter appropriations were cut by just over 2%, as the result of changes both up and down in a number of industries.) Petroleum industry appropriations rose 17.3% in the first quarter while appropriations in the rest of manufacturing fell 8.1 percent. In general, industries showing increases in the first quarter had had declines in the fourth, and vice versa. This is a typical pattern and reflects the volatility of the data over any short time span. Going beyond one quarter, to look at the data over the course of a year, the direction of change is unambiguously down: Total manufacturers' appropriations fell 18.6% from first quarter 1982 to first quarter 1983, with 11 of the 17 separate industries showing declines.

Cancellations and adjustments of previously approved appropriations amounted to $1.9 billion (seasonally adjusted) in the first quarter. This was the third largest amount on record, the first and second having been reported in the third and fourth quarters of 1982. Well over half of the first-quarter cancellations figure consisted of the $1.1 billion reported for the petroleum industry; excluding petroleum, cancellations dropped back to a more or less normal level in the quarter, following two very high quarters. Appropriations net of cancellations were $19.0 billion (seasonally adjusted) in the first quarter, up 1.5% from the fourth; excluding petroleum, net appropriations fell 4.8 percent. Net appropriations peaked in third quarter 1981 and are down 30.5% since then. Gross appropriations peaked in second quarter 1981 and are down 25.3 percent.

Capital spending by the 1,000 largest manufacturers fell 12.8% in the first quarter to $19.7 billion (seasonally adjusted). The drop was 7.9% excluding the big decline (22.5%) in the petroleum industry. Capital spending by the big companies has dropped in five of the past six quarters, both including and excluding petroleum. The steepest declines in the latest four quarters were in miscellaneous durables (50%), fabricated metals (47%), steel and motor vehicles (each 44%).

With capital spending of $19.7 billion in the first quarter and net new appropriations of only $19.0 billion, the backlog of unspent appropriations dropped $0.7 billion to $69.7 billion. This was the sixth consecutive decline and brought the backlog down 28.4% from its peak in third quarter 1981. Excluding petroleum, the backlog is $46.6 billion, down 28.8% from its peak in third quarter 1981.

Outlook for 1983

The big manufacturers' expectations for both appropriations and spending in 1983 were revised down in the previous quarterly survey and have now been revised down again. In the case of spending, the latest downward revision was concentrated in the petroleum industry, but the latest cutback in expected appropriations was widespread. The current outlook is for appropriations to rise only 6% this year and capital spending to drop 5 percent. Excluding petroleum, 1983 appropriations are expected to be up 1% and spending down 1 percent. These very modest expectations for 1983 capital appropriations—both with and without the petroleum industry—do not bode well for capital spending in 1984. Thus, 1984 could turn out to be the fourth consecutive year of softness in manufacturers' capital spending.

The Commerce Department's Bureau of Economic Analysis projects very little rise in capital goods prices this year. If that proves to be the case, then the big manufacturers' 1983 spending expectations translate into real-dollar spending declines of roughly 7% (total) and 3% (excluding petroleum). A real drop of 3% in nonpetroleum spending in 1983 would bring the cumulative three-year drop in that category to 13% or 14%, which is not at all out of line with the declines in past economic slumps. However, if 1984 sees yet another decline in real spending, the cumulative drop would of course grow larger.

Lora S. Collins

TABLE 1. PERCENT CHANGES IN CAPITAL APPROPRIATIONS AND EXPENDITURES

Seasonally Adjusted Data in Current and Constant (1972) Dollars

	Current Dollars				Constant Dollars			
	II-82 to III-82	III-82 to IV-82	IV-82 to I-83	I-82 to I-83	II-82 to III-82	III-82 to IV-82	IV-82 to I-83	I-82 to I-83
				—APPROPRIATIONS—				
ALL MANUFACTURING	— 4.4	13.9	— 0.4	—18.6	— 2.7	14.3	— 2.9	—16.6
ALL MFG. EX PETROLEUM	1.9	14.0	— 8.1	—12.0	3.1	16.9	— 8.2	—12.2
DURABLE GOODS	3.2	8.9	— 3.0	— 5.7	3.8	12.2	— 2.5	— 4.8
*Primary iron & steel	4.0	—31.0	38.6	—54.0	4.4	—30.5	39.0	—53.3
Primary nonferrous metals	67.3	3.6	—38.1	—43.8	71.8	— 0.1	—36.2	—44.0
Electrical machinery & equipment	— 3.0	8.3	— 6.7	9.3	— 3.3	8.7	— 7.3	10.1
Nonelectrical machinery	—12.2	38.5	—27.3	—26.6	—10.9	46.2	—24.9	—23.6
Motor vehicles & equipment	69.7	—39.9	36.3	107.3	70.4	—37.8	36.8	115.4
Other transportation equipment	—29.5	48.7	8.9	— 3.8	—29.7	59.3	6.8	— 5.6
Stone, clay & glass	41.1	31.6	—53.1	—28.2	44.9	31.2	—53.1	—29.4
Fabricated metals	—25.3	24.2	—13.8	—29.3	—26.4	28.8	—14.1	—28.8
Instruments & photo equipment	15.2	7.7	4.3	—10.3	15.3	10.9	3.7	—10.2
Other durable goods†	—52.1	38.6	248.3	62.2	—55.0	53.7	241.7	67.7
NONDURABLE GOODS	— 9.0	17.3	1.3	—25.0	— 6.7	15.8	— 3.2	—22.9
Food & beverages	—28.9	62.4	—23.6	— 9.0	—27.7	62.9	—24.1	—12.6
Textiles	49.8	—33.0	18.9	59.3	54.4	—33.6	19.7	62.1
Paper & allied products	19.8	16.3	72.7	—47.1	21.1	16.4	73.9	—47.3
Chemicals & allied products	5.4	11.8	—28.9	—17.3	9.1	16.4	—32.2	—20.3
Petroleum & coal products	—16.2	13.5	17.3	—28.4	—13.8	8.5	9.9	—24.3
Rubber products	—11.9	20.6	3.4	2.4	—11.3	21.4	5.2	12.1
Other nondurable goods†	18.9	22.8	—30.4	8.9	15.8	25.3	—29.4	12.7
				—EXPENDITURES—				
ALL MANUFACTURING	— 7.0	— 5.4	—12.8	—26.7	— 5.5	— 5.0	—14.4	—24.9
ALL MFG. EX PETROLEUM	— 8.2	— 4.5	— 7.9	—22.5	— 7.3	— 1.8	—8.3	—22.2
DURABLE GOODS	— 9.7	— 8.4	— 8.3	—27.6	— 9.4	— 5.4	— 7.7	—26.3
*Primary iron & steel	—13.6	—19.4	— 8.9	—44.3	—13.2	—18.9	— 8.6	—43.5
Primary nonferrous metals	—17.0	—19.1	26.0	—26.0	—14.7	—22.0	29.9	—26.4
Electrical machinery & equipment	— 5.3	— 11.2	— 0.7	— 0.7	— 5.5	11.6	— 1.3	0.0
Nonelectrical machinery	—11.1	—19.3	— 5.8	—30.0	— 9.8	—14.8	— 2.6	—27.2
Motor vehicles & equipment	—19.4	— 8.5	—16.2	—44.2	—19.1	— 5.4	—15.9	—42.0
Other transportation equipment	9.5	0.7	—16.4	— 3.5	9.2	7.9	—18.0	— 5.4
Stone, clay & glass	3.1	— 2.1	— 5.7	—17.4	5.9	— 2.4	— 5.7	—18.4
Fabricated metals	— 9.5	—16.2	—24.8	—47.1	—10.9	—13.1	—25.0	—46.5
Instruments & photo equipment	— 2.7	— 3.4	—14.8	—18.1	— 2.6	— 0.5	—15.3	—18.3
Other durable goods†	—24.7	— 3.4	—13.9	—49.5	—29.3	7.2	—15.5	—47.7
NONDURABLE GOODS	— 5.1	— 3.3	—15.7	—26.1	— 2.8	— 4.7	—18.8	—23.8
Food & beverages	— 9.2	— 3.4	3.9	— 7.2	— 7.6	— 3.1	3.3	—10.9
Textiles	— 5.6	10.2	—22.4	— 9.2	— 2.7	9.2	—21.9	— 7.9
Paper & allied products	— 0.4	8.6	— 9.6	— 0.3	0.6	8.7	— 9.0	— 0.6
Chemicals & allied products	— 4.6	— 1.8	—10.0	—21.7	— 1.2	2.2	—14.1	—24.5
Petroleum & coal products	— 4.7	— 7.0	—22.5	—35.0	— 2.0	—11.1	—27.4	—31.3
Rubber products	— 8.3	17.0	0.0	16.3	— 7.6	17.7	1.7	27.8
Other nondurable goods†	— 8.4	9.6	—12.0	—20.0	—10.7	11.8	—10.7	—17.1

See General Notes on page 7.

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES

Seasonally Adjusted Quarterly Data in Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	II-82	III-82	IV-82	I-83	II-82	III-82	IV-82	I-83
ALL MANUFACTURING								
Opening backlog	91,110	82,821	74,294	70,391	82,732	78,605	74,319	72,336
Newly approved	19,331	18,482	21,043	20,965	9,579	9,318	10,654	10,340
Canceled	1,886	3,083	2,303	1,948	932	1,537	1,173	940
Capital expenditure	25,734	23,926	22,643	19,736	12,774	12,067	11,463	9,812
Closing backlog	82,821	74,294	70,391	69,672	78,605	74,319	72,336	71,924
DURABLE GOODS								
Opening backlog	36,854	32,689	28,422	27,115	36,609	34,521	32,391	31,696
Newly approved	7,308	7,543	8,211	7,968	3,646	3,783	4,246	4,139
Canceled	810	2,181	701	736	404	1,081	370	383
Capital expenditure	10,663	9,629	8,817	8,086	5,330	4,831	4,572	4,219
Closing backlog	32,689	28,422	27,115	26,261	34,521	32,391	31,696	31,233
*Primary iron & steel								
Opening backlog	4,985	4,114	3,412	2,761	5,961	5,494	5,115	4,762
Newly approved	329	342	236	327	177	184	128	178
Canceled	212	190	199	235	114	102	108	128
Capital expenditure	988	854	688	627	530	460	373	341
Closing backlog	4,114	3,412	2,761	2,226	5,494	5,115	4,762	4,470
Primary nonferrous metals								
Opening backlog	3,548	3,294	3,128	3,165	3,651	3,521	3,433	3,451
Newly approved	165	276	286	177	85	145	145	93
Canceled	—22	76	—47	53	—11	40	—24	28
Capital expenditure	441	366	296	373	226	193	151	195
Closing backlog	3,294	3,128	3,165	2,916	3,521	3,433	3,451	3,321
Electrical machinery & equipment								
Opening backlog	3,254	3,287	3,259	3,213	3,759	3,776	3,761	3,737
Newly approved	1,615	1,566	1,696	1,582	837	810	880	816
Canceled	16	111	93	79	8	57	48	41
Capital expenditure	1,566	1,483	1,649	1,638	811	767	855	844
Closing backlog	3,287	3,259	3,213	3,078	3,776	3,761	3,737	3,668
Nonelectrical machinery								
Opening backlog	7,973	6,643	5,408	5,525	6,663	6,026	5,425	5,486
Newly approved	2,022	1,775	2,459	1,787	970	864	1,263	949
Canceled	277	277	137	—27	133	135	70	—14
Capital expenditure	3,075	2,733	2,205	2,077	1,475	1,330	1,132	1,103
Closing backlog	6,643	5,408	5,525	5,262	6,026	5,425	5,486	5,346
Motor vehicles & equipment								
Opening backlog	7,008	6,049	4,963	4,666	6,669	6,205	5,676	5,527
Newly approved	895	1,519	913	1,244	434	739	460	629
Canceled	295	1,349	61	351	143	656	31	177
Capital expenditure	1,559	1,256	1,149	963	755	611	578	487
Closing backlog	6,049	4,963	4,666	4,596	6,205	5,676	5,527	5,491
Other transportation equipment								
Opening backlog	2,377	2,424	2,131	2,109	2,212	2,234	2,095	2,084
Newly approved	789	556	827	901	377	265	422	451
Canceled	—15	20	14	22	—7	10	7	11
Capital expenditure	757	829	835	698	362	395	426	349
Closing backlog	2,424	2,131	2,109	2,290	2,234	2,095	2,084	2,174
Stone, clay & glass								
Opening backlog	1,770	1,607	1,548	1,616	2,078	1,994	1,962	1,998
Newly approved	287	405	533	250	148	215	282	132
Canceled	36	37	47	23	19	20	25	12
Capital expenditure	414	427	418	394	214	227	221	209
Closing backlog	1,607	1,548	1,616	1,449	1,994	1,962	1,998	1,910
Fabricated metals								
Opening backlog	1,781	1,652	1,447	1,256	1,720	1,654	1,549	1,449
Newly approved	265	198	246	212	137	101	130	111
Canceled	—16	32	126	37	—8	16	66	19
Capital expenditure	410	371	311	234	212	189	164	123
Closing backlog	1,652	1,447	1,256	1,197	1,654	1,549	1,449	1,418

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES (continued)

	Current Dollars				Constant (1972) Dollars			
	II-82	III-82	IV-82	I-83	II-82	III-82	IV-82	I-83
Instruments & photo equipment								
Opening backlog	2,208	1,913	1,687	1,571	1,799	1,648	1,533	1,471
Newly approved	676	779	839	875	346	399	442	459
Canceled	—8	52	34	19	—4	27	18	10
Capital expenditure	979	953	921	785	501	488	486	411
Closing backlog	1,913	1,687	1,571	1,642	1,648	1,533	1,472	1,509
Other durable goods†								
Opening backlog	1,950	1,706	1,439	1,233	2,096	1,971	1,841	1,731
Newly approved	265	127	176	613	136	61	94	322
Canceled	35	37	37	--56	18	18	20	—29
Capital expenditure	474	357	345	297	244	172	185	156
Closing backlog	1,706	1,439	1,233	1,605	1,971	1,841	1,731	1,927
NONDURABLE GOODS								
Opening backlog	54,256	50,132	45,872	43,276	46,123	44,084	41,927	40,640
Newly approved	12,023	10,939	12,832	12,997	5,934	5,535	6,408	6,201
Canceled	1,076	902	1,602	1,212	529	456	803	558
Capital expenditure	15,071	14,297	13,826	11,650	7,444	7,235	6,892	5,593
Closing backlog	50,132	45,872	43,276	43,411	44,084	41,927	40,640	40,690
Food & beverages								
Opening backlog	3,552	3,542	3,178	3,467	3,855	3,850	3,667	3,813
Newly approved	1,497	1,064	1,728	1,320	738	534	870	660
Canceled	—38	25	84	96	—19	13	42	48
Capital expenditure	1,545	1,403	1,355	1,408	762	704	682	704
Closing backlog	3,542	3,178	3,467	3,283	3,850	3,667	3,813	3,721
Textiles								
Opening backlog	766	720	807	718	814	790	836	790
Newly approved	243	364	244	290	126	194	129	154
Canceled	19	22	52	27	10	12	27	14
Capital expenditure	270	255	281	218	139	136	148	116
Closing backlog	720	807	718	763	790	836	790	814
Paper & allied products								
Opening backlog	6,353	5,953	5,621	4,971	5,117	4,908	4,732	4,388
Newly approved	465	557	648	1,119	243	295	343	596
Canceled	—32	—4	328	66	—17	—2	174	35
Capital expenditure	897	893	970	877	469	472	513	467
Closing backlog	5,953	5,621	4,971	5,147	4,908	4,732	4,382	4,482
Chemicals & allied products								
Opening backlog	8,705	8,071	7,681	7,386	8,951	8,643	8,446	8,292
Newly approved	2,236	2,357	2,636	1,873	1,087	1,187	1,381	937
Canceled	36	44	277	—15	18	22	145	—8
Capital expenditure	2,834	2,703	2,654	2,388	1,378	1,361	1,390	1,195
Closing backlog	8,071	7,681	7,386	6,886	8,643	8,446	8,292	8,042
Petroleum and coal products								
Opening backlog	30,986	28,057	24,681	22,584	23,971	22,532	20,827	19,814
Newly approved	6,726	5,639	6,403	7,509	3,305	2,849	3,091	3,398
Canceled	1,050	815	870	1,065	516	412	420	482
Capital expenditure	8,605	8,200	7,630	5,912	4,228	4,142	3,683	2,675
Closing backlog	28,057	24,681	22,584	23,116	22,532	20,827	19,814	20,055
Rubber products								
Opening backlog	924	913	912	956	1,045	1,039	1,039	1,061
Newly approved	193	170	205	212	98	87	106	111
Canceled	24	6	—32	—34	12	3	—16	—18
Capital expenditure	180	165	193	193	91	84	99	101
Closing backlog	913	912	956	1,009	1,039	1,039	1,061	1,089
Other nondurable goods†								
Opening backlog	2,970	2,876	2,992	3,194	2,370	2,322	2,379	2,481
Newly approved	663	788	968	674	337	390	489	345
Canceled	17	—6	23	7	9	—3	12	4
Capital expenditure	740	678	743	654	376	336	375	335
Closing backlog	2,876	2,992	3,194	3,207	2,322	2,379	2,481	2,488

See General Notes on page 7.

TABLE 3. PROPORTION OF APPROPRIATIONS FOR PLANT

Percent

	81-I	81-II	81-III	81-IV	82-I	82-II	82-III	82-IV	83-I
ALL MANUFACTURING	21	20	19	18	20	25	23	17	19
DURABLE GOODS	19	21	19	18	21	25	24	17	18
Primary iron and steel	6	14	38	12	8	3	3	2	2
Primary nonferrous metals	20	20	16	24	14	17	10	22	14
Electrical machinery & equipment	16	19	16	13	22	14	16	16	19
Nonelectrical machinery	19	25	13	19	23	37	34	19	10
Motor vehicles & equipment	30	30	24	26	37	34	34	25	25
Other transportation equipment	27	24	25	38	23	38	40	21	28
Stone, clay & glass	10	7	19	9	8	15	8	10	11
Fabricated metals	16	13	30	14	17	15	21	11	13
Instruments & photo equipment	10	15	20	14	15	18	19	11	14
Other durable goods	17	20	17	13	25	16	36	6	13
NONDURABLE GOODS	23	17	18	19	19	26	21	17	22
Food & beverages	20	21	23	22	17	29	25	25	28
Textiles	16	22	14	14	15	15	7	11	10
Paper & allied products	14	3	6	17	9	11	9	10	9
Chemicals & allied products	22	14	20	20	18	33	24	13	28
Rubber products	21	19	13	12	43	20	19	18	14
Other nondurable goods	23	42	26	16	32	20	29	24	21

Based on data from those companies that report appropriations for plant and equipment separately. The composition of this group varies slightly from quarter to quarter. Petroleum industry is excluded. Historical data from 1959 available on request.

See also General Notes on page 7.

TABLE 4. PERCENT CHANGE IN CAPITAL APPROPRIATIONS AND EXPENDITURES: 1981 AND 1982 ACTUAL, 1983 EXPECTED*

	Appropriations			Expenditures		
	1981	1982	1983	1981	1982	1983
All Manufacturing	2	—18	6	15	—3	— 5
All Manufacturing except Petroleum	—2	—20	1	6	—6	— 1
Durable goods	—5	—24	4	4	—7	—17
Nondurable goods	7	—14	6	24	0	3
Petroleum	12	—15	14	42	6	—12
Other	2	—14	—4	8	—6	23

*Based on survey respondents' own expectations.

See also General Notes on page 7.

TABLE 5. CAPITAL APPROPRIATIONS AND EXPENDITURES, ANNUAL TOTALS
In Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	1979	1980	1981	1982	1979	1980	1981	1982
				—APPROPRIATIONS—				
ALL MANUFACTURING	88,519	104,631	106,956	87,544	52,469	58,497	55,029	
ALL MFG. EX. PETROLEUM	68,993	71,756	70,052	56,020	41,380	40,215	37,056	
DURABLE GOODS	43,339	44,271	42,146	32,031	26,088	24,893	22,357	
Primary iron & steel	3,559	2,889	5,210	1,563	2,175	1,663	2,736	
Primary nonferrous metals	1,941	3,384	2,482	1,082	1,163	1,883	1,497	
Electrical machinery & equipment	5,859	6,544	5,787	6,663	3,535	3,668	3,073	
Nonelectrical machinery	10,236	9,368	12,700	8,710	6,183	5,324	6,674	
Motor vehicles & equipment	8,129	7,110	3,489	3,915	4,897	3,985	1,796	
Other transportation equipment	3,817	4,201	3,099	3,225	2,246	2,293	1,589	
Stone, clay & glass	2,367	2,043	2,094	1,562	1,449	1,178	1,126	
Fabricated metals	1,846	1,571	1,765	1,022	1,125	881	931	
Instruments & photo equipment	2,925	3,114	4,273	3,372	1,765	1,782	2,273	
Other durable goods†	2,660	4,047	1,247	917	1,549	2,236	663	
NONDURABLE GOODS	45,180	60,360	64,810	55,513	26,381	33,604	32,672	
Food & beverages	6,640	6,603	5,772	5,792	3,938	3,706	3,022	
Textiles	960	999	1,150	1,028	574	568	610	
Paper & allied products	3,979	3,576	5,010	4,006	2,440	2,050	2,704	
Chemicals & allied products	10,725	12,170	12,019	9,476	6,346	6,718	6,328	
Petroleum & coal products	19,526	32,875	36,904	31,524	11,089	18,282	17,973	
Rubber products	1,057	902	813	776	645	524	431	
Other nondurable goods†	2,293	3,235	3,142	2,911	1,350	1,756	1,603	
				—EXPENDITURES—				
ALL MANUFACTURING	73,126	88,209	101,341	98,614	43,290	49,327	51,949	
ALL MFG. EX. PETROLEUM	56,250	65,981	69,763	65,297	33,694	36,967	36,646	
DURABLE GOODS	35,230	41,056	42,871	39,945	21,173	23,070	22,505	
Primary iron & steel	3,243	3,458	3,405	3,545	1,973	1,992	1,797	
Primary nonferrous metals	1,685	2,411	2,386	1,574	1,005	1,334	1,252	
Electrical machinery & equipment	4,918	6,271	6,069	6,354	2,965	3,506	3,225	
Nonelectrical machinery	8,400	9,826	11,289	10,906	5,060	5,569	5,939	
Motor vehicles & equipment	5,335	5,555	6,688	5,610	3,213	3,109	3,429	
Other transportation equipment	2,908	4,039	3,464	3,156	1,710	2,186	1,770	
Stone, clay & glass	2,407	2,289	1,886	1,726	1,472	1,317	1,016	
Fabricated metals	1,614	1,568	1,515	1,513	982	883	799	
Instruments & photo equipment	2,389	2,889	3,629	3,827	1,445	1,653	1,931	
Other durable goods†	2,331	2,750	2,540	1,734	1,346	1,521	1,347	
NONDURABLE GOODS	37,896	47,153	58,470	58,669	22,117	26,257	29,443	
Food & beverages	5,037	6,014	6,744	5,802	2,989	3,370	3,523	
Textiles	763	900	1,039	1,044	459	508	550	
Paper & allied products	3,018	3,859	3,746	3,653	1,841	2,199	2,025	
Chemicals & allied products	9,309	10,918	11,785	11,180	5,506	6,021	6,199	
Petroleum & coal products	16,876	22,228	31,578	33,317	9,595	12,360	15,303	
Rubber products	963	801	749	704	588	465	398	
Other nondurable goods†	1,930	2,433	2,829	2,969	1,139	1,333	1,445	

1982 constant-dollar data will be published later in 1983.

Each annual figure is the sum of not-seasonally-adjusted quarterly figures, and may not equal the sum of seasonally adjusted quarterly figures.

GENERAL NOTES

Data for 1982-IV are revised; data for 1983-I are preliminary. 1982 totals are revised.

* A significant change in the sample creates discontinuity between IV-82 and prior estimates of appropriations and expenditures in primary iron and steel.

All estimates are based on a survey and are for the survey population, which is composed of the 1,000 largest manufacturing companies as ranked by total assets in 1979.

Historical data from 1953 available on request from the Business Conditions Analysis Department: (1) quarterly series seasonally adjusted; (2) quarterly series not seasonally adjusted; (3) annual series.

†Other durables includes lumber, furniture and fixtures, and miscellaneous manufactures; other nondurables includes tobacco, apparel, printing and publishing, and leather.

The Conference Board

Quarterly Survey of Capital Investment and Supply Conditions in Manufacturing

April 1983

Shortages were nonexistent and product allocations fewer than ever in April, according to the large manufacturers reporting to the Quarterly Survey of Capital Investment and Supply Conditions. However, there were small and significant improvements since January in reported use of existing capital plant and in plans for expanding capacity, along with another expected rise this year in the use of internal funds to finance capital investment.

As of April, increases in demand had not changed the proportion of survey respondents with "inadequate" facilities—still a record-low 7% (weighted by company assets, Table 1); the bulk of that was reported by two industries, nonelectrical machinery and nonautomotive transportation equipment. But about 5% of the survey response shifted from "more than adequate" to "sufficient." This improvement was broad-based, affecting 12 of the 17 industry groups. There was no industry without some excess capacity in April but 15 of the 17 reported a lesser degree of underutilization than in January. About a third of all April respondents had more than 20% of their capacity unused—the same as six months earlier but down from the January high.

Although the overall percentage of manufacturers planning to enlarge capacity (46%, Table 2) was little changed from January, improvements in some industries bode well for a more general recovery. Excluding petroleum, the percentage rose to 49% as expansion plans increased appreciably in steel, electrical machinery, instruments, stone-clay-glass, textiles and rubber. Motor vehicles, chemicals, and nonautomotive transport equipment were the most expansion-oriented industries in April. Yet, the spending programs of only 75%, 69% and 61% of these respective industry respondents were geared for expansion—far below their 1980 peak percentages (91%, 94% and 91%). Two industries, nonautomotive transport and paper, reported a higher incidence of planned capacity reduction than in January while six industries, including steel and nonferrous metals, reported a lower incidence.

The easing of external funds availability reported six months ago has leveled off (Table 5); four-fifths of the April respondents found such funds unchanged since January, while a mere 3% (the smallest figure in six years) found outside funds harder to get. But regardless of the availability of credit, these large manufacturers anticipate funding nearly 89% of their capital spending from internal sources in the second half of this year (Table 4). In keeping with the rise in cash flow, that is the highest estimate since 1979 and reflects upward revision from January in the expectations of six durable goods industries. In nondurables, even the downward-revised April figure of 90% is the highest reported in the past seven years.

Aircraft and submarines appeared on the very short list of items scheduled for delayed delivery in April.

M. Nichols

TABLE 1. ADEQUACY OF CAPITAL FACILITIES

Percent Distribution of Responding Companies Weighted by Assets

	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983
					Inadequate					
All Manufacturing	10.5	10.5	9.3	10.1	8.3	8.4	7.9	7.0	6.8	6.8
Durable goods	13.9	16.1	13.2	14.9	13.0	11.4	10.9	11.1	10.2	10.8
Nondurable goods	7.2	6.1	5.7	5.7	4.3	5.9	5.2	3.3	3.7	3.4
					Sufficient					
All Manufacturing	55.0	56.6	50.5	52.8	52.8	45.7	45.0	41.9	39.8	44.6
Durable goods	45.4	49.7	52.1	52.4	50.8	47.6	44.6	39.4	34.0	40.6
Nondurable goods	64.4	62.0	49.1	53.2	54.5	44.1	45.3	44.1	45.0	47.9
					More Than Adequate					
All Manufacturing	34.5	32.9	40.2	37.1	38.9	45.9	47.1	51.1	53.4	48.6
Durable goods	40.7	34.2	34.7	32.7	36.2	41.0	44.5	49.5	55.9	48.6
Nondurable goods	28.4	31.9	45.3	41.1	41.2	50.1	49.6	52.6	51.3	48.7

TABLE 2. CHANGE IN CAPITAL FACILITIES EXPECTED FROM CURRENT SPENDING PROGRAMS

Percent Distribution of Responding Companies Weighted by Assets

	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983
Expansion										
All Manufacturing	71.4	71.1	66.8	71.4	63.9	55.0	56.5	56.8	46.1	45.6
Durable goods	60.8	66.4	62.1	60.9	59.0	55.7	53.3	40.7	39.9	43.4
Nondurable goods	81.9	74.7	71.1	80.8	68.0	54.3	59.5	71.6	51.7	47.3
No Change										
All Manufacturing	28.2	27.2	32.0	27.2	34.6	41.9	36.1	37.1	44.4	44.5
Durable goods	38.9	31.0	35.7	36.4	38.5	38.7	38.5	46.9	49.3	45.5
Nondurable goods	17.5	24.2	28.6	19.0	31.4	44.8	33.9	28.1	40.0	43.6
Reduction										
All Manufacturing	0.4	1.7	1.2	1.4	1.5	3.1	7.4	6.1	9.6	10.0
Durable goods	0.3	2.6	2.2	2.7	2.5	5.6	8.2	12.4	10.8	11.1
Nondurable goods	0.5	1.1	0.2	0.2	0.6	0.9	6.7	0.3	8.4	9.1

TABLE 3. EXTERNAL SUPPLY SHORTAGES

Percent of Companies (weighted by assets) Reporting Lowered Production Because of Shortages

	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983
Raw Materials										
All Manufacturing	2.6	0.4	0.4	0.2	0.1	0.0	0.1	0.1	0.0	0.0
Durable goods	0.7	0.3	0.2	0.3	0.3	0.0	0.2	0.2	0.0	0.0
Nondurable goods	4.6	0.5	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Processed Goods										
All Manufacturing	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0
Durable goods	0.2	0.5	0.3	0.4	0.2	0.3	0.0	0.0	0.0	0.0
Nondurable goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Both										
All Manufacturing	1.2	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Durable goods	1.2	1.7	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Nondurable goods	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 4. ANTICIPATED SOURCES OF FUNDS FOR CAPITAL EXPENDITURES

Percent Distribution of Responding Companies Weighted by Assets

	1979		1980		1981		1982		1983	
	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half (r-3)	Second Half (r-1)
From Internal Sources										
All Manufacturing	89.2	88.6	83.7	83.2	84.3	83.6	81.3	81.5	87.0	88.9
Durable goods	89.7	87.9	77.8	83.7	82.4	83.9	79.7	78.3	85.3	87.3
Nondurable goods	88.6	89.5	89.2	82.8	85.7	83.4	82.6	84.2	88.4	90.2
From External Sources										
All Manufacturing	10.8	11.4	16.3	16.8	15.7	16.4	18.7	18.5	13.0	11.1
Durable goods	10.3	12.1	22.2	16.3	17.6	16.1	20.3	21.7	14.7	12.7
Nondurable goods	11.4	10.5	10.8	17.2	14.3	16.6	17.4	15.8	11.6	9.8

TABLE 5. AVAILABILITY OF EXTERNAL CAPITAL FUNDS COMPARED WITH THREE MONTHS EARLIER

Percent Distribution of Responding Companies

	Jan. 1981	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983
Easier										
All Manufacturing	5.4	6.7	3.1	6.0	5.7	4.6	3.5	15.4	16.6	15.9
Durable goods	6.3	7.6	2.5	5.1	5.3	5.4	3.5	17.4	19.9	16.7
Nondurable goods	4.4	5.8	3.7	7.0	6.1	3.7	3.6	13.4	13.2	15.1
Same										
All Manufacturing	86.5	85.1	88.2	85.4	86.5	89.9	89.2	79.2	78.3	81.3
Durable goods	84.7	84.8	90.5	87.3	86.2	89.2	88.6	75.5	74.4	79.6
Nondurable goods	88.3	85.3	85.8	83.4	86.7	90.6	89.8	82.8	82.4	82.8
Tighter										
All Manufacturing	8.1	8.2	8.7	8.6	7.9	5.6	7.3	5.4	5.1	2.9
Durable goods	8.9	7.6	7.0	7.6	8.5	5.4	8.0	7.1	5.8	3.8
Nondurable goods	7.2	8.9	10.5	9.6	7.2	5.8	6.6	3.8	4.4	2.1

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Second Quarter 1983

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July 1983

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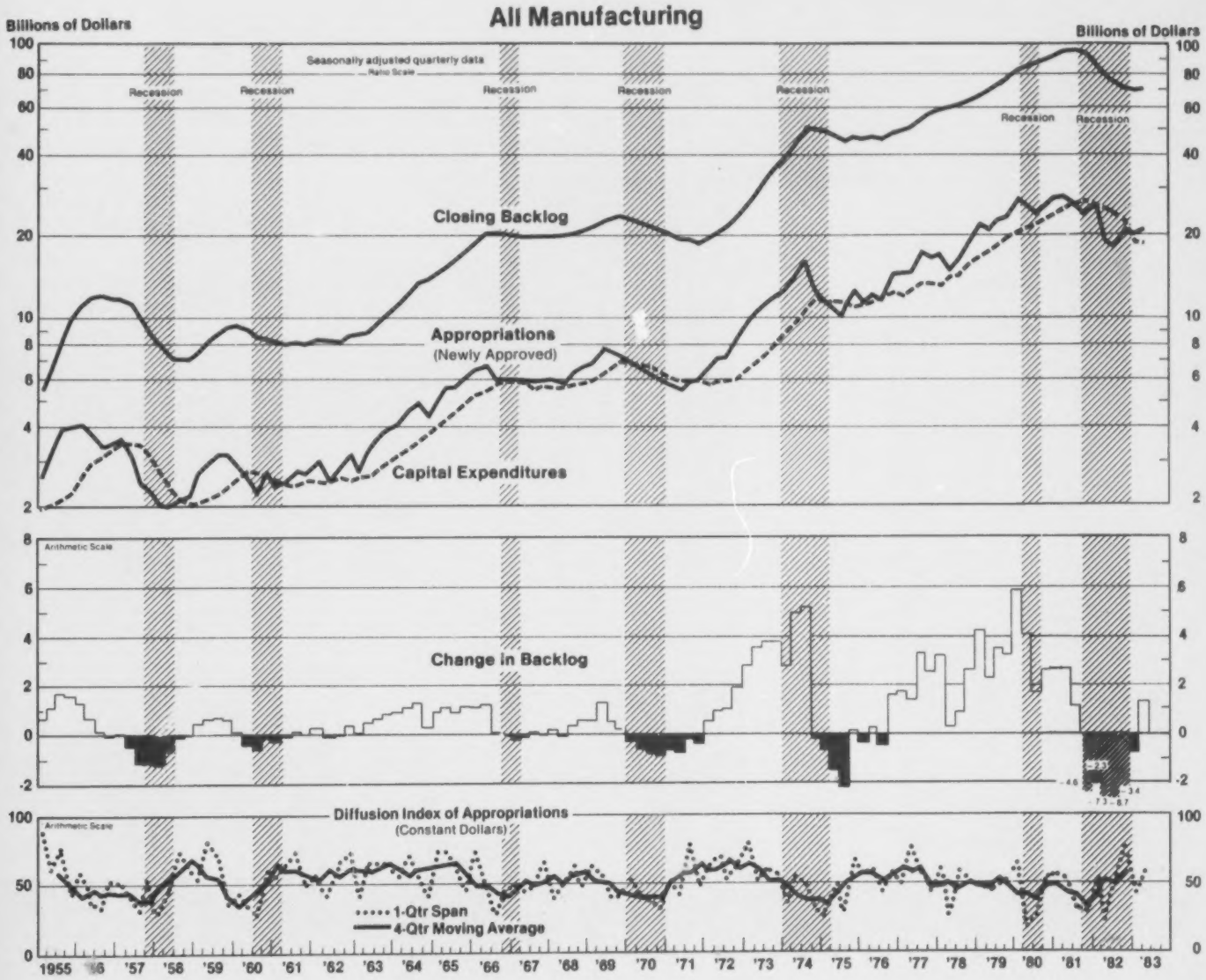
CAPITAL APPROPRIATIONS IN RECESSION AND EXPANSION



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The Conference Board
Quarterly Survey of Capital Appropriations
Second Quarter 1983

The capital investment picture in U.S. manufacturing remains gray, but there are signs of brightening. While actual capital outlays are still declining, an upward trend is developing in capital appropriations. The depressed state of investment activity in the petroleum industry is dampening the aggregate manufacturing data, especially for appropriations, because petroleum is such a significant part of the total. Excluding the petroleum industry, current prospects are that the large manufacturers' appropriations will rise modestly in 1983, following declines in 1982 and 1981, and only a small rise in 1980. Turns in capital spending occur after those in appropriations, and it appears that spending by the large companies (excluding petroleum) will decline modestly in 1983. Even so, the total three-year (1981, 1982, 1983) spending decline in real terms should not be any more severe than the real declines associated with other economic slumps in the past 35 years.

Second Quarter of 1983

Capital appropriations of the nation's 1,000 largest manufacturers rose 3.9% in the second quarter to $21.0 billion (seasonally adjusted). Petroleum industry appropriations fell 17.6% in the second quarter while appropriations in the rest of manufacturing rose 14.7 percent. The rise boosted nonpetroleum appropriations to $15.4 billion, almost 25% above the recent low in 1982-IIIQ but still far below the peak of $20.5 billion set in 1980-IQ. In real terms, of course, appropriations are even further below the peak. Ten of the 16 nonpetroleum industries for which data are tabulated show appropriations gains from the first to the second quarter. The margin is wider—12 of 16— when the comparison is made with the second quarter of 1982. First-quarter appropriations were revised down about 4% as a result of changes both up and down in a number of industries. In addition to these changes, caused mostly by late survey responses, data for the past two years have been affected by the regular revision of seasonal adjustment factors.

Cancellations and adjustments of previously approved appropriations were $0.9 billion in the second quarter, a relatively normal figure. This was in striking contrast to the heavy volume of cancellations—a cumulative $9.0 billion—in the preceding four quarters. The petroleum industry accounted for most of the cancellations in the latest quarter. *Appropriations net of cancellations were $20.0 billion in the second quarter, up 10.4% from the first. Excluding petroleum, net appropriations increased 22.2% in the second quarter and were 48% above their recent low in 1982-IIIQ.*

Capital spending by the 1,000 largest manufacturers was essentially unchanged in the second quarter (down 0.8% overall, up 0.2% excluding petroleum). The total outlay was $18.7 billion (seasonally adjusted). Spending was down from the first quarter in nine of the 17 industries tabulated; compared with a year earlier—1982-IIQ—spending was down in all but one industry. Changes in spending follow changes in appropriations, and the current spending softness reflects the depressed state of appropriations in 1982 and 1981.

The backlog of unspent appropriations increased in the second quarter for the first time since 1981-IIIQ. The backlog increased $1.3 billion, that being the amount by which total spending ($18.7 billion) fell short of net appropriations ($20.0 billion). The backlog at the end of the second quarter was $71.4 billion; its peak was $97.1 billion in 1981-IIIQ.

Outlook for 1983

Excluding the large and currently quite depressed petroleum industry, the appropriations outlook for 1983 has brightened. Expectations of the nonpetroleum companies point to an 8% rise in appropriations this year, compared with only 1% expected three months ago and 6% expected six months ago. A strengthening of expectations occurred in both durables and nondurables industries. The outlook for petroleum appropriations has meanwhile been revised down sharply, to an expectation of a 9% decline in 1983. Total manufacturers' appropriations are expected to rise 2% this year. *The 8% rise expected in nonpetroleum appropriations, if realized, should support at least a modest spending gain in 1984.* Given the strength of economic activity this year, it would not be surprising if nonpetroleum appropriations were to rise more than expected.

Spending prospects for 1983 are weak. An overall decline of 12% is expected by the big manufacturers, with petroleum outlays down 23% and the rest down 7 percent. The 1982 figures were −3% for the total, +6% for petroleum and −6% for nonpetroleum industries. The Commerce Department's Bureau of Economic Analysis projects a small drop in capital goods prices paid by manufacturers this year. This implies that, in real terms, the expected drop in spending by nonpetroleum companies may be one or two percentage points less than 7 percent. BEA's own expectations survey points to a roughly 3½ percent real spending drop this year in manufacturing excluding petroleum.

Lora S. Collins

TABLE 1. PERCENT CHANGES IN CAPITAL APPROPRIATIONS AND EXPENDITURES
Seasonally Adjusted Data in Current and Constant (1972) Dollars

	Current Dollars				Constant Dollars			
	III-82 to IV-82	IV-82 to I-83	I-83 to II-83	II-82 to II-83	III-82 to IV-82	IV-82 to I-83	I-83 to II-83	II-82 to II-83
				—APPROPRIATIONS—				
ALL MANUFACTURING	16.5	— 6.1	3.9	4.6	18.2	— 6.7	4.8	8.0
ALL MFG. EX PETROLEUM	16.5	— 8.2	14.7	20.3	19.0	— 7.3	12.4	23.4
DURABLE GOODS	14.0	— 0.5	16.6	29.1	17.1	1.0	13.9	32.7
*Primary iron & steel	—30.6	39.9	145.6	162.2	—30.4	40.5	137.1	156.0
Primary nonferrous metals	— 6.3	—45.1	235.7	155.4	— 9.8	—43.4	227.1	152.6
Electrical machinery & equipment	17.8	— 14.6	48.0	38.2	17.8	—14.8	43.3	33.4
Nonelectrical machinery	26.7	—18.5	6.8	— 2.3	33.2	—15.5	3.4	5.0
Motor vehicles & equipment	—15.4	49.6	—17.8	44.0	—12.8	56.3	—19.1	53.5
Other transportation equipment	43.5	8.7	—15.2	— 2.9	53.0	7.0	—14.5	2.8
Stone, clay & glass	36.8	—53.1	100.0	58.4	36.0	—52.9	98.6	61.6
Fabricated metals	0.5	0.0	70.6	33.2	3.8	0.4	68.9	34.5
Instruments & photo equipment	10.8	1.3	— 9.9	9.3	13.7	0.8	—10.2	11.4
Other durable goods†	68.0	169.8	—39.1	36.4	85.5	170.9	—43.8	31.5
NONDURABLE GOODS	18.1	— 9.6	— 4.8	— 9.7	19.0	—11.8	— 1.9	— 7.0
Food & beverages	53.3	—27.1	15.6	3.2	53.3	—27.0	14.6	4.3
Textiles	—28.4	10.7	— 6.3	4.6	—29.3	11.6	— 7.0	6.5
Paper & allied products	19.0	37.7	—54.0	—23.6	18.6	39.6	—54.8	—22.9
Chemicals & allied products	13.6	—27.9	20.8	— 0.6	17.8	—29.0	19.7	4.3
Petroleum & coal products	16.6	— 1.6	—17.6	—23.0	16.5	— 5.5	—12.2	—20.7
Rubber products	38.5	—17.5	97.3	81.5	38.9	—16.1	101.6	91.2
Other nondurable goods†	6.4	—21.8	52.0	53.4	8.2	—20.4	47.1	50.3
				—EXPENDITURES—				
ALL MANUFACTURING	— 4.6	—17.7	— 0.8	—26.9	— 3.0	—17.8	— 0.5	—24.7
ALL MFG. EX PETROLEUM	— 4.1	—11.2	0.2	—20.5	— 1.7	—10.6	— 1.7	—18.4
DURABLE GOODS	— 7.6	—11.5	— 1.6	—25.8	— 4.8	—10.3	— 3.8	—23.9
*Primary iron & steel	—18.8	—15.2	4.4	—35.6	—18.6	—14.9	0.7	—36.9
Primary nonferrous metals	—16.5	1.0	— 1.6	—30.6	—19.7	4.1	— 4.2	—30.9
Electrical machinery & equipment	12.5	— 3.8	— 9.4	— 6.6	12.5	— 4.0	—12.3	— 9.9
Nonelectrical machinery	—20.1	— 6.8	— 1.4	—31.7	—16.0	— 3.3	— 4.6	—26.6
Motor vehicles & equipment	— 7.9	—21.8	— 0.5	—39.5	— 5.1	—18.3	— 2.2	—35.4
Other transportation equipment	— 0.1	— 6.2	— 0.9	— 0.7	6.5	— 7.8	— 0.2	4.9
Stone, clay & glass	1.2	—11.5	4.5	— 6.2	0.6	—11.1	3.8	— 4.6
Fabricated metals	—14.7	—29.9	— 5.8	—48.4	—11.9	—29.6	— 6.8	—47.6
Instruments & photo equipment	— 1.3	—17.5	2.3	—18.9	1.3	—18.0	2.0	—17.3
Other durable goods†	6.9	—26.1	9.8	—36.0	18.0	—25.7	1.2	—38.3
NONDURABLE GOODS	— 2.6	—21.6	— 0.3	—27.6	— 1.8	—22.8	2.2	—25.3
Food & beverages	— 0.6	— 4.0	8.2	— 5.3	— 0.7	— 3.9	7.2	— 4.1
Textiles	3.8	—13.7	—11.6	—22.6	2.6	—13.1	—12.2	—21.0
Paper & allied products	6.7	—10.8	2.2	— 1.8	6.3	— 9.6	0.5	— 1.1
Chemicals & allied products	— 1.9	—12.5	— 4.3	—21.7	1.7	—13.8	— 5.2	—17.8
Petroleum & coal products	— 5.6	—30.3	— 3.3	—39.5	— 5.6	—33.1	3.0	—37.7
Rubber products	8.9	— 5.4	70.7	65.9	9.2	— 3.8	74.4	74.7
Other nondurable goods†	9.0	—17.6	3.4	—14.1	10.8	—16.1	0.1	—16.1

See General Notes on page 7.

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES

Seasonally Adjusted Quarterly Data in Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	III-82	IV-82	I-83	II-83	III-82	IV-82	I-83	II-83
ALL MANUFACTURING								
Opening backlog	82,879	74,153	70,758	70,042	78,751	74,440	72,707	72,309
Newly approved	18,439	21,488	20,176	20,955	9,165	10,838	10,107	10,595
Canceled	3,174	1,996	2,051	949	1,563	1,018	1,007	474
Capital expenditure	23,991	22,887	18,841	18,687	11,913	11,553	9,499	9,456
Closing backlog	74,153	70,758	70,042	71,361	74,440	72,707	72,309	72,974
DURABLE GOODS								
Opening backlog	32,947	28,391	27,040	26,434	34,644	32,362	31,643	31,313
Newly approved	7,224	8,238	8,197	9,554	3,639	4,260	4,303	4,902
Canceled	2,096	640	885	337	1,043	338	469	174
Capital expenditure	9,684	8,949	7,918	7,795	4,878	4,641	4,163	4,004
Closing backlog	28,391	27,040	26,434	27,856	32,362	31,643	31,313	32,038
*Primary iron & steel								
Opening backlog	4,101	3,394	2,717	2,199	5,485	5,103	4,736	4,454
Newly approved	343	238	333	818	185	129	181	430
Canceled	185	213	256	94	100	116	139	49
Capital expenditure	865	702	595	621	468	381	324	327
Closing backlog	3,394	2,717	2,199	2,302	5,103	4,736	4,454	4,508
Primary nonferrous metals								
Opening backlog	3,308	3,157	3,156	2,933	3,527	3,447	3,447	3,330
Newly approved	272	255	140	470	144	130	73	240
Canceled	60	—47	57	—28	32	—24	30	—14
Capital expenditure	363	303	306	301	192	154	160	154
Closing backlog	3,157	3,156	2,933	3,130	3,447	3,447	3,330	3,430
Electrical machinery & equipment								
Opening backlog	3,598	3,517	3,575	3,405	3,935	3,893	3,923	3,835
Newly approved	1,519	1,790	1,529	2,263	788	929	791	1,134
Canceled	114	60	90	40	59	31	47	20
Capital expenditure	1,486	1,672	1,609	1,458	771	867	833	730
Closing backlog	3,517	3,575	3,405	4,170	3,893	3,923	3,835	4,218
Nonelectrical machinery								
Opening backlog	6,824	5,465	5,449	5,271	6,112	5,448	5,440	5,345
Newly approved	1,810	2,294	1,869	1,996	885	1,178	996	1,030
Canceled	390	89	—24	—92	191	46	—13	—47
Capital expenditure	2,779	2,221	2,071	2,041	1,358	1,141	1,104	1,053
Closing backlog	5,465	5,449	5,271	5,318	5,448	5,440	5,345	5,369
Motor vehicles & equipment								
Opening backlog	5,783	4,532	4,289	4,418	6,068	5,456	5,334	5,402
Newly approved	1,208	1,022	1,529	1,257	590	515	804	651
Canceled	1,174	81	474	247	574	41	249	128
Capital expenditure	1,285	1,184	926	921	628	596	487	477
Closing backlog	4,532	4,289	4,418	4,507	5,456	5,334	5,402	5,448
Other transportation equipment								
Opening backlog	2,366	2,130	2,147	2,326	2,205	2,092	2,101	2,190
Newly approved	600	861	936	794	287	439	470	402
Canceled	18	27	—9	26	9	14	—5	13
Capital expenditure	818	817	766	759	392	417	385	384
Closing backlog	2,130	2,147	2,326	2,335	2,092	2,101	2,190	2,195
Stone, clay & glass								
Opening backlog	1,634	1,550	1,610	1,468	2,007	1,963	1,994	1,919
Newly approved	380	520	244	488	202	275	130	257
Canceled	44	35	10	—7	23	19	5	—4
Capital expenditure	420	425	376	393	224	225	200	207
Closing backlog	1,550	1,610	1,468	1,570	1,963	1,994	1,919	1,973
Fabricated metals								
Opening backlog	1,689	1,493	1,272	1,212	1,673	1,573	1,456	1,424
Newly approved	213	214	214	365	109	113	113	191
Canceled	36	117	51	—9	18	62	27	—5
Capital expenditure	373	318	223	210	190	168	118	110
Closing backlog	1,493	1,272	1,212	1,376	1,573	1,456	1,424	1,510

TABLE 2. CAPITAL APPROPRIATIONS AND EXPENDITURES (continued)

	Current Dollars				Constant (1972) Dollars			
	III-82	IV-82	I-83	II-83	III-82	IV-82	I-83	II-83
Instruments & photo equipment								
Opening backlog	1,978	1,743	1,612	1,679	1,682	1,562	1,493	1,528
Newly approved	757	839	850	766	389	442	446	400
Canceled	45	35	12	32	23	18	6	17
Capital expenditure	947	935	771	789	487	493	404	412
Closing backlog	1,743	1,612	1,679	1,624	1,562	1,493	1,528	1,499
Other durable goods†								
Opening backlog	1,666	1,410	1,213	1,523	1,950	1,826	1,720	1,887
Newly approved	122	205	553	337	59	110	298	167
Canceled	30	30	—32	34	15	16	—17	17
Capital expenditure	348	372	275	302	169	199	148	150
Closing backlog	1,410	1,213	1,523	1,524	1,826	1,720	1,887	1,887
NONDURABLE GOODS								
Opening backlog	49,932	45,762	43,718	43,608	44,107	42,078	41,064	40,995
Newly approved	11,215	13,250	11,979	11,401	5,527	6,577	5,804	5,693
Canceled	1,078	1,356	1,166	612	520	680	537	301
Capital expenditure	14,307	13,938	10,923	10,892	7,036	6,911	5,336	5,452
Closing backlog	45,762	43,718	43,608	43,505	42,078	41,064	40,995	40,936
Food & beverages								
Opening backlog	3,473	3,198	3,523	3,445	3,815	3,677	3,840	3,801
Newly approved	1,161	1,780	1,298	1,501	585	896	654	749
Canceled	43	71	47	92	22	36	24	46
Capital expenditure	1,393	1,384	1,329	1,438	702	697	670	718
Closing backlog	3,198	3,523	3,445	3,416	3,677	3,840	3,801	3,787
Textiles								
Opening backlog	727	781	706	724	794	823	783	793
Newly approved	338	242	268	251	180	128	142	132
Canceled	24	47	17	25	13	25	9	13
Capital expenditure	260	270	233	206	139	142	124	109
Closing backlog	781	706	724	744	823	783	793	803
Paper & allied products								
Opening backlog	6,008	5,675	5,071	5,062	4,937	4,760	4,441	4,436
Newly approved	558	664	914	420	296	351	490	222
Canceled	—11	306	65	11	—6	162	35	6
Capital expenditure	902	962	858	877	479	509	460	463
Closing backlog	5,675	5,071	5,062	4,594	4,760	4,441	4,436	4,189
Chemicals & allied products								
Opening backlog	8,203	7,719	7,379	6,994	8,710	8,465	8,287	8,089
Newly approved	2,287	2,599	1,874	2,264	1,156	1,362	967	1,157
Canceled	59	279	—69	60	30	146	—36	31
Capital expenditure	2,712	2,660	2,328	2,228	1,371	1,394	1,201	1,138
Closing backlog	7,719	7,379	6,994	6,970	8,465	8,287	8,089	8,076
Petroleum and coal products								
Opening backlog	27,671	24,432	22,924	23,162	22,459	20,909	20,188	20,297
Newly approved	5,899	6,879	6,766	5,576	2,824	3,290	3,108	2,728
Canceled	956	660	1,146	850	458	316	526	416
Capital expenditure	8,182	7,727	5,382	5,206	3,917	3,695	2,472	2,547
Closing backlog	24,432	22,924	23,162	22,682	20,909	20,188	20,297	20,062
Rubber products								
Opening backlog	913	894	967	1,017	1,039	1,030	1,067	1,094
Newly approved	161	223	184	363	83	115	96	195
Canceled	11	—34	—40	29	6	—18	—21	16
Capital expenditure	169	184	174	297	87	95	91	159
Closing backlog	894	967	1,017	1,054	1,030	1,067	1,094	1,113
Other nondurable goods†								
Opening backlog	2,937	3,063	3,148	3,204	2,352	2,415	2,458	2,487
Newly approved	811	863	675	1,026	403	436	347	511
Canceled	—4	27	0	—455	—2	14	0	—226
Capital expenditure	689	751	619	640	342	379	318	318
Closing backlog	3,063	3,148	3,204	4,045	2,415	2,458	2,487	2,905

See General Notes on page 7.

TABLE 3. PROPORTION OF APPROPRIATIONS FOR PLANT

Percent

	81-II	81-III	81-IV	82-I	82-II	82-III	82-IV	83-I	83-II
ALL MANUFACTURING	20	19	18	20	25	23	17	18	20
DURABLE GOODS	21	19	18	21	25	24	17	17	20
Primary iron and steel	14	38	12	8	3	3	2	3	12
Primary nonferrous metals	20	16	24	14	17	10	22	15	21
Electrical machinery & equipment	19	16	13	22	14	16	16	19	27
Nonelectrical machinery	25	13	19	23	37	34	19	10	18
Motor vehicles & equipment	30	24	26	37	34	34	25	14	17
Other transportation equipment	24	25	38	23	38	40	21	28	24
Stone, clay & glass	7	19	9	8	15	8	10	11	11
Fabricated metals	13	30	14	17	15	21	11	12	13
Instruments & photo equipment	15	20	14	15	18	19	11	15	14
Other durable goods	20	17	13	25	16	36	6	7	30
NONDURABLE GOODS	17	18	19	19	26	21	17	19	21
Food & beverages	21	23	22	17	29	25	25	27	28
Textiles	22	14	14	15	15	7	11	11	11
Paper & allied products	3	6	17	9	11	9	10	8	11
Chemicals & allied products	14	20	20	18	33	24	13	20	21
Rubber products	19	13	12	43	20	19	18	15	6
Other nondurable goods	42	26	16	32	20	29	24	21	29

Based on data from those companies that report appropriations for plant and equipment separately. The composition of this group varies slightly from quarter to quarter. Petroleum industry is excluded. Historical data from 1959 available on request.

See also General Notes on page 7.

TABLE 4. PERCENT CHANGE IN CAPITAL APPROPRIATIONS AND EXPENDITURES: 1981 AND 1982 ACTUAL, 1983 EXPECTED*

	Appropriations			Expenditures		
	1981	1982	1983	1981	1982	1983
All Manufacturing	2	—18	2	15	—3	—12
All Manufacturing except Petroleum	—2	—20	8	6	—6	— 7
Durable goods	—5	—24	8	4	—7	—16
Nondurable goods	7	—14	—2	24	0	—10
Petroleum	12	—15	—9	42	6	—23
Other	2	—14	7	8	—6	7

*Based on survey respondents' own expectations.

See also General Notes on page 7.

TABLE 5. CAPITAL APPROPRIATIONS AND EXPENDITURES, ANNUAL TOTALS
In Millions of Current and Constant (1972) Dollars

	Current Dollars				Constant (1972) Dollars			
	1979	1980	1981	1982	1979	1980	1981	1982
				—APPROPRIATIONS—				
ALL MANUFACTURING	88,519	104,631	106,956	87,544	52,469	58,497	55,027	43,665
ALL MFG. EX. PETROLEUM	68,993	71,756	70,052	56,020	41,380	40,215	37,054	28,584
DURABLE GOODS	43,339	44,271	42,146	32,031	26,088	24,893	22,355	16,306
Primary iron & steel	3,559	2,889	5,210	1,563	2,175	1,663	2,736	841
Primary nonferrous metals	1,941	3,384	2,482	1,082	1,163	1,883	1,497	564
Electrical machinery & equipment	5,859	6,544	5,787	6,663	3,535	3,668	3,073	3,446
Nonelectrical machinery	10,236	9,368	12,700	8,710	6,183	5,324	6,674	4,351
Motor vehicles & equipment	8,129	7,110	3,489	3,915	4,897	3,985	1,793	1,924
Other transportation equipment	3,817	4,201	3,099	3,225	2,246	2,293	1,589	1,599
Stone, clay & glass	2,367	2,043	2,094	1,562	1,449	1,178	1,126	826
Fabricated metals	1,846	1,571	1,765	1,022	1,125	881	931	531
Instruments & photo equipment	2,925	3,114	4,273	3,372	1,765	1,782	2,273	1,753
Other durable goods†	2,660	4,047	1,247	917	1,549	2,236	663	470
NONDURABLE GOODS	45,180	60,360	64,810	55,513	26,381	33,604	32,672	27,359
Food & beverages	6,640	6,603	5,772	5,792	3,938	3,706	3,022	2,927
Textiles	960	999	1,150	1,028	574	568	610	541
Paper & allied products	3,979	3,576	5,010	4,006	2,440	2,050	2,704	2,130
Chemicals & allied products	10,725	12,170	12,019	9,476	6,346	6,718	6,328	4,828
Petroleum & coal products	19,526	32,875	36,904	31,524	11,089	18,282	17,973	15,081
Rubber products	1,057	902	813	776	645	524	431	391
Other nondurable goods†	2,293	3,235	3,142	2,911	1,350	1,756	1,603	1,459
				—EXPENDITURES—				
ALL MANUFACTURING	73,126	88,209	101,341	98,614	43,290	49,327	51,949	49,205
ALL MFG. EX. PETROLEUM	56,250	65,981	69,763	65,297	33,694	36,967	36,646	33,272
DURABLE GOODS	35,230	41,056	42,871	39,945	21,173	23,070	22,505	20,322
Primary iron & steel	3,243	3,458	3,405	3,545	1,973	1,992	1,797	1,912
Primary nonferrous metals	1,685	2,411	2,386	1,574	1,005	1,334	1,252	818
Electrical machinery & equipment	4,918	6,271	6,069	6,354	2,965	3,506	3,225	3,285
Nonelectrical machinery	8,400	9,826	11,289	10,906	5,060	5,569	5,939	5,425
Motor vehicles & equipment	5,335	5,555	6,688	5,610	3,213	3,109	3,429	2,749
Other transportation equipment	2,908	4,039	3,464	3,156	1,710	2,186	1,770	1,561
Stone, clay & glass	2,407	2,289	1,886	1,726	1,472	1,317	1,016	914
Fabricated metals	1,614	1,568	1,515	1,513	982	883	799	785
Instruments & photo equipment	2,389	2,889	3,629	3,827	1,445	1,653	1,931	1,988
Other durable goods†	2,331	2,750	2,540	1,734	1,346	1,521	1,347	885
NONDURABLE GOODS	37,896	47,153	58,470	58,669	22,117	26,257	29,443	28,883
Food & beverages	5,037	6,014	6,744	5,802	2,989	3,370	3,523	2,933
Textiles	763	900	1,039	1,044	459	508	550	550
Paper & allied products	3,018	3,859	3,746	3,653	1,841	2,199	2,025	1,935
Chemicals & allied products	9,309	10,918	11,785	11,180	5,506	6,021	6,199	5,690
Petroleum & coal products	16,876	22,228	31,578	33,317	9,595	12,360	15,303	15,933
Rubber products	963	801	749	704	588	465	398	355
Other nondurable goods†	1,930	2,433	2,829	2,969	1,139	1,333	1,445	1,487

Each annual figure is the sum of not-seasonally-adjusted quarterly figures, and may not equal the sum of seasonally adjusted quarterly figures.

GENERAL NOTES

Data for 1983-I are revised; data for 1983-II are preliminary.

As a result of the annual updating of seasonal adjustment, all data beginning 1982-I have been revised to incorporate new seasonal factors; seasonal adjustment of data for Motor vehicles & equipment has also been revised for 1981. In addition, all constant-dollar data beginning 1982-I incorporate revised deflators.

* A significant change in the sample creates discontinuity between IV-82 and prior estimates of appropriations and expenditures in primary iron and steel.

All estimates are based on a survey and are for the survey population, which is composed of the 1,000 largest manufacturing companies as ranked by total assets in 1979.

Historical data from 1953 available on request from the Business Conditions Analysis Department: (1) quarterly series seasonally adjusted; (2) quarterly series not seasonally adjusted; (3) annual series.

†Other durables includes lumber, furniture and fixtures, and miscellaneous manufactures; other nondurables includes tobacco, apparel, printing and publishing, and leather.

The Conference Board

Quarterly Survey of Capital Investment and Supply Conditions in Manufacturing

July 1983

About half of the large manufacturers reporting to the Quarterly Survey of Capital Investment and Supply Conditions in July said that their plant and equipment facilities were just about right for current demand and that they had no immediate plans to increase or decrease capacity. As to financing, manufacturers' internal cash flow is apparently ample for projects now under way. Reflecting the improving economy, a handful of new reports of products on allocation in July augmented April's meager list.

The current capital spending programs of 50% of the survey respondents (weighted by assets, Table 2) will have no effect on manufacturing capacity. Plans to enlarge or reduce capacity were both less prevalent in July than in April. In nine of the 17 industries, the rise in the "no change" response parallels a decline in "expansion." In three industries, the "expansion" response increased while "no change" declined. The highest incidence of expansion programs in July (70%) was reported by "other nondurables" firms (chiefly in publishing and tobacco). *The overall 41% "expansion" figure is the lowest ever in the survey.* Expansion programs have been trending down since mid-1979, when 79% of respondents reported such plans. (The all-time high was 92% in January 1966.)

According to the reports of "inadequate" facilities (Table 1), demand pressures in July were even lower than in April for all industries except food and beverages. In eight industries there was no inadequacy whatever. The July rise in the percentage reporting "sufficient" capacity (to 48% overall) reflects durables industries' reuse of capacity reported in April as "more than adequate." For nondurables, the July "sufficient" percentage would be 56% rather than 46% if petroleum were excluded. While excess capacity rose in petroleum, it declined significantly in nonferrous metals and motor vehicles, and the overall percentage reporting excess capacity dropped to 46% in July. The degree of underutilization of capacity also dropped: excluding petroleum, only 27% of all survey respondents had more than 20% of their facilities idle, which is a better finding than any since January 1982.

Although 87% of the manufacturers (Table 5) found no change between April and July in the availability of external funds for capital spending, and 10% reported easier access, the expected resort to external funds in the rest of 1983 was revised down a second time, to 10.0% of total capital spending needs (Table 4). This figure has gone below 10% only twice in the 18-year history of the survey: in first half 1972 and second half 1976. Furthermore, preliminary indications for the first half of next year are only 10.8% (the survey average is 14.3%). These numbers suggest that, in the absence of strong demand for new capacity, manufacturers' internal cash flow is ample for the capital projects already scheduled.

The newly reported items on allocation in July were mostly electronic components (e.g., logic analyzers, semiconductors, integrated circuits) but included innovatively packaged food products and mobile homes.

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TABLE 1. ADEQUACY OF CAPITAL FACILITIES

Percent Distribution of Responding Companies Weighted by Assets

	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983	July 1983
					Inadequate					
All Manufacturing	10.5	9.3	10.1	8.3	8.4	7.9	7.0	6.8	6.8	6.3
Durable goods	16.1	13.2	14.9	13.0	11.4	10.9	11.1	10.2	10.8	9.5
Nondurable goods	6.1	5.7	5.7	4.3	5.9	5.2	3.3	3.7	3.4	3.5
					Sufficient					
All Manufacturing	56.6	50.5	52.8	52.8	45.7	45.0	41.9	39.8	44.6	47.9
Durable goods	49.7	52.1	52.4	50.8	47.6	44.6	39.4	34.0	40.6	50.0
Nondurable goods	62.0	49.1	53.2	54.5	44.1	45.3	44.1	45.0	47.9	46.0
					More Than Adequate					
All Manufacturing	32.9	40.2	37.1	38.9	45.9	47.1	51.1	53.4	48.6	45.8
Durable goods	34.2	34.7	32.7	36.2	41.0	44.5	49.5	55.9	48.6	40.5
Nondurable goods	31.9	45.3	41.1	41.2	50.1	49.6	52.6	51.3	48.7	50.5

TABLE 2. CHANGE IN CAPITAL FACILITIES EXPECTED FROM CURRENT SPENDING PROGRAMS

Percent Distribution of Responding Companies Weighted by Assets

	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983	July 1983
					Expansion					
All Manufacturing	71.1	66.8	71.4	63.9	55.0	56.5	56.8	46.1	45.6	40.6
Durable goods	66.4	62.1	60.9	59.0	55.7	53.3	40.7	39.9	43.4	40.9
Nondurable goods	74.7	71.1	80.8	68.0	54.3	59.5	71.6	51.7	47.3	40.3
					No Change					
All Manufacturing	27.2	32.0	27.2	34.6	41.9	36.1	37.1	44.4	44.5	50.3
Durable goods	31.0	35.7	36.4	38.5	38.7	38.5	46.9	49.3	45.5	48.8
Nondurable goods	24.2	28.6	19.0	31.4	44.8	33.9	28.1	40.0	43.6	51.6
					Reduction					
All Manufacturing	1.7	1.2	1.4	1.5	3.1	7.4	6.1	9.6	10.0	9.2
Durable goods	2.6	2.2	2.7	2.5	5.6	8.2	12.4	10.8	11.1	10.3
Nondurable goods	1.1	0.2	0.2	0.6	0.9	6.7	0.3	8.4	9.1	8.2

TABLE 3. EXTERNAL SUPPLY SHORTAGES

Percent of Companies (weighted by assets) Reporting Lowered Production Because of Shortages

	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983	July 1983
					Raw Materials					
All Manufacturing	0.4	0.4	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Durable goods	0.3	0.2	0.3	0.3	0.0	0.2	0.2	0.0	0.0	0.0
Nondurable goods	0.5	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
					Processed Goods					
All Manufacturing	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Durable goods	0.5	0.3	0.4	0.2	0.3	0.0	0.0	0.0	0.0	0.2
Nondurable goods	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
					Both					
All Manufacturing	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Durable goods	1.7	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nondurable goods	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 4. ANTICIPATED SOURCES OF FUNDS FOR CAPITAL EXPENDITURES

Percent Distribution of Responding Companies Weighted by Assets

	1980		1981		1982		1983		1984
	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half	Second Half (r-2)	First Half (p)
				From Internal Sources					
All Manufacturing	83.7	83.2	84.3	83.6	81.3	81.5	87.0	90.0	89.2
Durable goods	77.8	83.7	82.4	83.9	79.7	78.3	85.3	88.7	87.2
Nondurable goods	89.2	82.8	85.7	83.4	82.6	84.2	88.4	91.2	91.0
				From External Sources					
All Manufacturing	16.3	16.8	15.7	16.4	18.7	18.5	13.0	10.0	10.8
Durable goods	22.2	16.3	17.6	16.1	20.3	21.7	14.7	11.3	12.8
Nondurable goods	10.8	17.2	14.3	16.6	17.4	15.8	11.6	8.8	9.0

TABLE 5. AVAILABILITY OF EXTERNAL CAPITAL FUNDS COMPARED WITH THREE MONTHS EARLIER

Percent Distribution of Responding Companies

	Apr. 1981	July 1981	Oct. 1981	Jan. 1982	Apr. 1982	July 1982	Oct. 1982	Jan. 1983	Apr. 1983	July 1983
					Easier					
All Manufacturing	6.7	3.1	6.0	5.7	4.6	3.5	15.4	16.6	15.9	9.5
Durable goods	7.6	2.5	5.1	5.3	5.4	3.5	17.4	19.9	16.7	9.6
Nondurable goods	5.8	3.7	7.0	6.1	3.7	3.6	13.4	13.2	15.1	9.4
					Same					
All Manufacturing	85.1	88.2	85.4	86.5	89.9	89.2	79.2	78.3	81.3	87.1
Durable goods	84.8	90.5	87.3	86.2	89.2	88.6	75.5	74.4	79.6	86.9
Nondurable goods	85.3	85.8	83.4	86.7	90.6	89.8	82.8	82.4	82.8	87.3
					Tighter					
All Manufacturing	8.2	8.7	8.6	7.9	5.6	7.3	5.4	5.1	2.9	3.4
Durable goods	7.6	7.0	7.6	8.5	5.4	8.0	7.1	5.8	3.8	3.5
Nondurable goods	8.9	10.5	9.6	7.2	5.8	6.6	3.8	4.4	2.1	3.3

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